# Author Index to Volume 29


**Abd-El-Nour, K. N.** See Aziz, A. W., 2635
**Abdul-Rasoul, F. A.** See Abu-Zeid, M. E., 2431, 2443
**Abhiraman, A. S.** See Sakthivel, A., 4257
**Abouzahr, S.**
—; Wilkes, G. L.: Structure Property Studies of Polyester- and Polyether-Based MDI–BD Segmented Polyurethanes: Effect of One- vs. Two-Stage Polymerization Conditions, 2695
**Abu-Zeid, M. E.**
—; Nofal, E. E.; Marafi, M. A.; Tahseen, L. A.; Abdul-Rasoul, F. A.; Ledwith, A.: Accelerated Degradation of Poly(vinyl Chloride) (PVC) Monitored by Photoacoustic Spectroscopy, 2431
—; Nofal, E. E.; Tahseen, L. A.; Abdul-Rasoul, F. A.; Ledwith, A.: Photoacoustic Study of UV, UV–Thermal, and Weathering Degradation of Rigid Foam Polyurethane, 2443
**Achar, B. N.**
—; Fohlen, G. M.; Parker, J. A.: Studies on Heat-Resistant Thermosetting Phthalocyanine Polymers, 353
**Adabbo, H. E.** See Riccardi, C. C., 2481
**Adhikari, B.** See Bhattacharya, V. K., 2069
**Agarwal, P. K.** See Weiss, R. A., 2719
**Aharoni, S. M.**
Nucleation of PET Crystallization by Metal Hydroxides, 853
**Ahmed, A.**
—; Blanchard, L-P.: Copolymerization of Elemental Sulfur with Styrene, 1225
**Akihide, H.** See Miyauchi, S., 251
**Akovali, G.**
—; Hasirci, N.: Polymerization of Hexamethyldisiloxane by Plasma on Activated Charcoal: Investigation of Parameters, 2617
**Allen, S. R.** See Pottick, L. A., 3915
**Amari, T.** See Otsubo, Y., 4071; Watanabe, K., 57
**Ambrose, R. J.** See Hsich, H. S. Y., 413, 2331
**Anani, A.**
—; Mobasher, A.; Rasoul, F. A.: Use of Photoacoustic Spectroscopy in Studying the Natural Weathering of Polyethylene Films, 1491
**Andrady, A. L.**
—; Sefcik, M. D.: Mechanical and Gas Transport Properties of Poly-ϵ-caprolactone Model Networks, 3561
**Antal, M.**
—; Ebringerova, A.; Simkovic, I.: New Aspects in Cationization of Lignocellulose Materials. I. Preparation of Lignocellulose Materials Containing Quarternary Ammonium Groups, 637
—; Ebringerova, A.; Simkovic, I.: New Aspects in Cationization of Lignocellulose Materials. II. Distribution of Functional Groups in Lignin, Hemicellulose, and Cellulose Components, 643
**Antal, M. J., Jr.** See Hopkins, M. W., 2163
**Apicella, A.** See Sarti, G. C., 4145
—; Nicolais, L.; Iannone, M.; Passerini, P.: Thermokinetics and Chemorheology of the Cure Reactions of the Tetraglycidyl Diamino Diphenyl Methane–Diamino Diphenyl Sulfone Epoxy Systems, 2083
**Arai, K.**
—; Ogiwara, Y.: Hydrolysis of Dextrin in a Reversed Micelle: Dependence of Some Behaviors of the Micelle on the Medium (Note), 4399
—; Ogiwara, Y.: Hydrolysis of Dextrin in the Presence of 12-Tungstosilicic Acid, 3087
**Arnold, C., Jr.**
—; Assink, R. A.: Structure–Property Relationships of Anionic Exchange Membranes for Fe/Cr Redox Storage Batteries, 2317
**Aronhime, M. T.**
—; Gillham, J. K.: Transformation of Liquid to Amorphous Solid: The Time to Vitrify for Styrene Polymerization, 2017
**Artigiani, F.** See Maschio, G., 1215
**Asano, N.** See Masuda, S., 1309
**Ashbee, K. H. G.** See Sargent, J. P., 809
**Ashida, M.**
—; Noguchi, T.; Mashimo, S.: Dynamic Moduli for Short Fiber-CR Composites, 661
—; Noguchi, T.; Mashimo, S.: Effect of Absorbed Water on Dynamic Modulus for Short Fiber–CR Composites, 4107
**Ashitaka, H.**
—; Kusuki, Y.; Yamamoto, S.; Ogata, Y.; Nagasaka, A.: Preparation of Carbon Fibers from Syndiotactic 1,2-Polybutadiene, 2763
**Assink, R. A.** See Arnold, C., Jr., 2317
**Avakian, P.** See Maerov, S. B., 2797
**Avny, Y.** See Domb, A., 2517
**Aziz, A. W.**
—; Abd-El-Nour, K. N.: Dielectric and Ultrasonic Absorption in Some Linear Polyamides, 2635
**Azuma, C.**
—; Hiramatsu, T.; Tanaka, H.; Sanui, K.; Ogata, N.: Synthesis and Properties of Photosensitive Rubbers. III. Synthesis of Chloroacetylated Polybutadiene and its Photosensitivity, 481

**Badran, A. S.** See Moustafa, A. B., 3677, 3687
**Bagchi, S.** See Biswas, M., 1183, 1999, 3753
**Bagrodia, S.** See Mohajer, Y., 1943
—; Pisipati, R.; Wilkes, G. L.; Storey, R. F.; Kennedy, J. P.: Melt Rheology of Ion-Containing Polymers. I. Effect of Molecular Weight and Excess Neutralizing Agent in Model Elastomeric Sulfonated Polyisobutylene-Based Ionomers, 3065
**Balard, H.** See Haidar, B., 4309
**Balas, A.**
—; Palka, G.; Foks, J.; Janik, H.: Properties of Cast Urethane Elastomers Prepared from Poly(ϵ-caprolactone)s, 2261
**Banu, D.** See Blaga, A., 3421
**Barlow, J. W.** See Fernandes, A. C., 1971; Keitz, J. D., 3131; Murff, S. R., 3231; Preston, W. E., 845, 2251; Suarez, H., 3253; Woo, E. M., 3837
**Barnett, C. A.** See Glasser, W. G., 1815
**Barquins, M.**
Kinetics of the Spontaneous Peeling of Elastomers, 3269
**Bassani, L. C.**
—; Santos, W. M. S.; Marechal, B.: Permeability Coefficient of Proton-Irradiated Poly(ethylene Terephthalate) Thin Films, 2785
**Bassett, W. H., Jr.** See Sun, T., 2307

—; Sun, T.; Porter, R. S.: Solution NMR Study of the Post-Polymerization Crosslinking Agent *N,N'*-(2-propyloximino)-4,4'-Methylenebis(phenylcarbamate). I., 2299
**Beach, D. L.** See Bozik, J. E., 3491; Kissin, Y. V., 1171
**Beck, K. R.** See Vail, S. L., 3569
—; Pasad, D. M.; Vail, S. L.; Xiang, Z.: Reagent Residues on *N*-Methylolpyrrolidone-Treated Cotton, 3579
**Beldie, C.** See Poinescu, Ig. C., 23
—; Poinescu, Ig. C.; Cotan, V.: Synthesis of Macroporous Bifunctional Ion Exchangers Containing Sulfo and Carboxyl Groups, 13
**Belfer, S.**
—; Egozy, Y.; Korngold, E.: Resins Containing Extractants: Morphology of Polymers Prepared by Polymerization of Vinyl Monomers in the Presence of Uranium-Selective Extractants, 3825
**Bell, J. P.** See Ochi, M., 1381
**Bellobono, I. R.**
—; Marcandalli, B.; Selli, E.; Leidi, G.; Polissi, A.: A Model Study for Release of Plasticizers from Polymer Films through Vapor Phase, 3185
**Beltrame, P. L.** See Focher, B., 3329
**Benoit, H.** See Lecacheux, D., 1569
**Berkowitz, S.**
Viscosity–Molecular Weight Relationships for Poly(ethylene Terephthalate) in Hexafluoroisopropanol–Pentafluorophenol Using SEC–LALLS, 4353
**Bertoniere, N. R.** See Rowland, S. P., 3349
**Bhatawdekar, S. P.** See Paralikar, K. M., 2573
**Bhattacharya, V. K.**
—; Maiti, M. M.; Adhikari, B.; Maiti, S.: Polymer Characteristics and Fracture Morphology of Radiation-Polymerized Styrene-Impregnated Mortar, 2069
**Bhattacharyya, S. N.**
—; Maldas, D.: Radiation-Induced Graft Copolymerization of Mixtures of Styrene and Acrylamide onto Cellulose Acetate. IV. Studies on Some Physical Properties and Structural Characterization by Means of Scanning Electron Microscopy, 1559
**Biswas, M.**
—; Bagchi, S.: Cation Exchange Resin from Phosphorylated *N*-Vinylcarbazole Formaldehyde Copolymer, 3753
—; Bagchi, S.: Cation Exchange Resin from Sulfonated Poly-*N*-Vinylcarbazole–Formaldehyde Copolymer, 1999
—; Bagchi, S.; Uryu, T.: Crosslinked Polymer from *N*-Vinylcarbazole and Formalin, 1183
—; Chatterjee, S.: Chemical Modification of Polystyrene. V. Sulfonic Acid Resins from Anhydride Substituted Polystyrene, 829
**Blaga, A.** See Feldman, D., 515
—; Feldman, D.; Banu, D.: Acrylic Terpolymer–PVC Blends with Improved Properties, 3421
**Blair, H. S.** See McKay, G., 1499
**Blanchard, L-P.** See Ahmed, A., 1225
**Bogdanovic, V.**
—; Djordjevic, B.; Tasic, A.: Influence of the Structural Order on Thermodynamic Properties for Three Different Polyethylenes (Note), 2671
**Bohm, G. G. A.** See Roland, C. M., 3803
**Bohm, L. L.**
Homo- and Copolymerization with a Highly Active Ziegler–Natta Catalyst, 279
**Borisov, G.** See Troev, K., 577, 1701
**Borsus, J. M.**
—; Merckaert, P.; Jerome, R.; Teyssie, Ph.: Enhancement of Adhesion between Filler and Polymer in Alumina-Filled Rigid Polyurethane Foams, 1857
**Boyd, D.**
—; Narasimhan, V.; Huang, R. Y. M.; Burns, C. M.: The Use of a Densitometer as a Detector for Gel Permeation Chromatography, 595
**Bozik, J. E.**
—; Vogel, R. F.; Kissin, Y. V.; Beach, D. L.: Metallophosphate-Supported Ziegler–Natta Catalysts for Ethylene Polymerization, 3491
**Brands, A. M. G.** See Scholte, Th. G., 3763
**Brigodiot, M.** See Makani, S., 4081, 4091
**Britten, A.** See Daly, J., 1403
**Broughton, R. M.** See Gupta, D. K., 2537
**Brown, W.**
—; Stilbs, P.; Lindstrom, T.: Self-Diffusion of Small Molecules in Cellulose Gels Using FT-Pulsed Field Gradient NMR, 823
**Buckley, C. P.**
—; Taylor, R. J.: Method for Studying Orientation Variations Near Surfaces in Semicrystalline Polymers, 1985
**Bunsell, A. R.** See Oudet, C., 4363
**Burfield, D. R.**
—; Lim, K-L.; Law, K-S.: Epoxidation of Natural Rubber Latices: Methods of Preparation and Properties of Modified Rubbers, 1661
**Burks, H. D.**
—; St. Clair, T. L.: Synthesis and Characterization of BDSDA/APB Polyimide, 4037
—; St. Clair, T. L.: The Effect of Molecular Weight on the Melt Viscosity and Fracture Energy of BDSDA/APB (Note), 1027
**Burns, C. M.** See Boyd, D., 595; Lau, W. W. Y., 1531
**Burns, F. B.** See Renschler, C. L., 1125
—; Renschler, C. L.: Monitoring of Degradation of Thermally Aged Nylon 6,6. II. Pyrolysis–Gas Chromatography, 1133
**Burr, R. C.** See Fanta, G. F., 4449

**Caldo, C.**
Syntheses and Properties of Polymers from 1-Chloro-2,3-Epoxypropane and Amines, 1393
**Carciello, N.** See Sugama, T., 2889
**Carfagna, C.** See Guerra, G., 2271
**Carleton, P. S.** See Skuches, G. S., 3431
**Carniti, P.** See Focher, B., 3329
**Carstens, D. H. W.**
—; Ehart, E. P.: Permeability of Deuterium and Helium in Poly(vinyl Alcohol), 261
**Castro, J. M.**
—; Macosko, C. W.; Critchfield, F. E.: Effect of Processing Conditions on Premature Gelling, Knit Line Strength, and Physical Properties for the RIM Process, 1959
**Ceres, B. V.**
—; Schultz, J. M.: Dependence of Electrical Breakdown on Spherulite Size in Isotactic Polypropylene, 4183
**Cesari, M.** See Perego, G., 1141, 1157
**Cha, Y. S.**
—; Tsunooka, M.; Tanaka, M.; Konishi, H.: Photomodification of Polymer Surfaces: Photoreaction of Thiocyanato Group-Bearing Polymers (Note), 2941
**Chakraborty, S.** See Mathew, N. M., 427
**Chakraborty, S. K.** See Ramayya, A. P., 1911
**Chan, L. C.**
—; Nae, H. N.; Gillham, J. K.: Time-Temperature–Transformation (TTT) Diagrams of High $T_g$ Epoxy Systems: Competition Between Cure and Thermal Degradation, 3307
**Channell, H.** See Meister, J. J., 3457
**Charmas, W.**
—; Podkoscielny, W.: Thioetherglycidyl Resins. IV. Products of Condensation of Isomeric Di(mercaptomethyl)xylene with Epichlorohydrin, 4297
**Chatterjee, J.** See Mathew, N. M., 427
**Chatterjee, S.** See Biswas, M., 829
**Chee, K. K.**
—; Farris, R. J.: Kinetics of Phase Separation in Segmented Polyurethanes, 2529
**Chen, G-S.** See Neidlinger, H. H., 713
**Chidambareswaran, P. K.** See Lokhande, H. T., 2421

—; Patil, N. B.; Pawar, A. D.; Shukla, S. R.; Lokhande, H. T.: Kinetics of Swelling of Cotton Fibers in Aqueous Ethylenediamine Solutions Using X-Ray Diffraction, 837
**Chiu, S-C.**
—; Smith, T. G.: Compatibility of Poly(ϵ-Caprolactone) (PCL) and Poly(styrene-Co-Acrylonitrile) (SAN) Blends. II. The Influence of the AN Content in SAN Copolymer upon Blend Compatibility, 1797
—; Smith, T. G.: ffmpatibility of Poly(ϵ-Caprolactone) (PCL) and Poly(styrene-Co-Acrylonitrile) (SAN) Blends. I. Blends Containing SAN with 24 Wt% Acrylonitrile, 1781
**Chu, C. C.** See Williams, D. F., 1865
**Chuang, H-K.**
—; Han, C. D.: Rheological Behavior of Polymer Blends, 2205
**Chung, T.-s.**
Cure Mechanism of a Modified Nitrile Epoxy Adhesive (Note), 4403
**Clark, J. N.**
—; Daly, J. H.; Garton, A.: Hydrogen Bonding in Epoxy Resin/Poly(ϵ-caprolactone) Blends, 3381
**Cohn, D.**
—; Hoffman, A. S.; Ratner, B. D.: Radiation-Grafted Polymers for Biomaterial Applications. I. 2-Hydroxyethyl Methacrylate: Ethyl Methacrylate Grafting onto Low Density Polyethylene Films, 2645
**Cooney, J. D.**
—; Day, M.; Wiles, D. M.: Kinetic and Thermogravimetric Analysis of the Thermal Oxidative Degradation of Flame-Retardant Polyesters, 911
**Coriaty, E.** See Feldman, D., 515
**Cornell, J. H.**
—; Kaplan, A. M.; Rogers, M. R.: Biodegradability of Photooxidized Polyalkylenes, 2581
**Cotan, V.** See Beldie, C., 13
**Critchfield, F. E.** See Castro, J. M., 1959
**Cutolo, A.** See Guerra, G., 2271

**Daly, J.**
—; Britten, A.; Garton, A.; McLean, P. D.: An Additive for Increasing the Strength and Modulus of Amine-Cured Epoxy Resins, 1403
**Daly, J. H.** See Clark, J. N., 3381
**Damania, B. S.** See Gupta, S. K., 2177
**Danhelka, J.** See Mrkvickova, L., 803
**Danno, T.**
—; Kondoh, H.; Furuhata, K.-I.; Miyasaka, K.: Synthesis, Structure, and Properties of Conjugated Polyene Films by Dehydrochlorination of PVC Films, 3171
**Dansizer, C. J.** See Kamath, Y. K., 1011
**Dasare, B. D.** See Dave, P. J., 1617
**Dashevsky, L. I.** See Lipatov, Y. S., 1919
**Datye, K. V.**
—; Duraiswamy, R.; Satyamurthi, S.: Some Observations on Glass Transition of Poly(ethylene Terephthalate) Filaments in the Necking Region (Note), 4395
**Dave, P. J.**
—; Dasare, B. D.: Synthesis, Characterization, and Applications of Condensate Porous Polymeric Sorbents Based on *m*-Phenylenediamine, 1617
**Davis, L. D.** See Monaco, S. B., 4439
**Dawans, F.** See Makani, S., 4081, 4091
**Day, M.** See Cooney, J. D., 911
**De, S. K.** See Mathew, N. M., 427; Murty, V. M., 1355; Ramayya, A. P., 1911
**De Carvalho, L. H.**
—; Rudin, A.: Grafting of Poly(methyl methacrylate) in Aqueous Slurries of Wood Pulp, 2921
**Deledalle, P.**
—; Lablache-Combier, A.; Loucheux, C.: Photochemistry of Polymeric Systems. V. Photocrosslinking of Polymers and Copolymers Containing Pyrazine Mono- and Di-*N*-Oxide Groups, 125
**Della Fortuna, G.** See Perego, G., 1141

**Deniz, V.**
—; Guven, O.: Estimation of Unperturbed Parameter $K_\theta$ by Gel Permeation Chromatography and Viscometry (Note), 433
**De Notaristefani, C.** See Sarti, G. C., 4145
**De Paoli, M-A.**
—; Schultz, G. W.; Furlan, L. T.: Commercial Antioxidants as Photostabilizers for Butadiene Rubber, 2493
**De Ruvo, A.** See Rigdahl, M., 187; Westerlind, B., 175
**Deuskar, V. D.** See Roy-Chowdhury, P., 153
**Di Giacomo, B.** See Gostoli, C., 2873
**Di Giulio, C.**
—; Gautier, M.; Jasse, B.: Fourier Transform Infrared Spectroscopic Characterization of Aromatic Bismaleimide Resin Cure States, 1771
**Di Maina, M.** See Maschio, G., 1215
**Djordjevic, B.** See Bogdanovic, V., 2671
**Dmitruk, N. V.** See Lipatov, Y. S., 1919
**Doane, W. M.** See Fanta, G. F., 4449
**Dobkowski, Z.**
Procedure for Evaluation of the Mark–Houwink Constants, 2683
**Domb, A.**
—; Avny, Y.: Graft Polymerization of Propylene Sulfide on Crosslinked Polystyrene, 2517
**Donkai, N.** See Inagaki, H., 3741
**Donnet, J. B.** See Haidar, B., 4309
**Dreyfuss, P.** See Liang, F., 3147
**Duda, J. L.** See Vrentas, J. S., 399
**Duraiswamy, R.** See Datye, K. V., 4395
**Durand, J.-P.** See Makani, S., 4081, 4091
**Durning, C. J.**
—; Rebenfeld, L.: Dimensional Changes During Solvent-Induced Crystallization of Poly(ethylene Terephthalate) Films, 3197
**Dutkiewicz, J.**
Preparation of Cured Urea–Formaldehyde Resins of Low Formaldehyde Emission, 45
**Dutta, B.** See Setua, D. K., 3097
**Dutta, P. K.**
—; Graf, K. R.: Migration of Plasticizer in Vinyl Resins: An Infrared Spectroscopic Study (Note), 2247
**Dwivedi, U. N.**
—; Mitra, B. C.: Polymerization of Methyl Acrylate in the Presence of 2-Mercaptobenzothiazole, 4199
**Dwyer, J.** See Williams, D. F., 1865

**Ebewele, R. O.**
—; Peters, O. A.; Olayemi, J. Y.: Development of Wood-Products Adhesives from Mangrove Bark, 1415
**Ebringerova, A.** See Antal, M., 637, 643
**Eckstein, E. C.** See Pinchuk, L., 1749
**Edie, D. D.** See Hutchenson, K. W., 3621
**Egawa, H.** See Maeda, H., 2281
—; Nonaka, T.; Ikari, M.: Preparation of Macroreticular Chelating Resins Containing Dihydroxyphosphino and/or Phosphono Groups and Their Adsorption Ability for Uranium, 2045
**Egozy, Y.** See Belfer, S., 3825
**Ehart, E. P.** See Carstens, D. H. W., 261
**Eisenberg, A.** See Escoubes, M., 1249; Rutkowska, M., 755
**El-Aasser, M. S.** See Lowry, V., 3925
**El-Derini, M. E.** See Gadalla, A. M., 3027
**El-Kalubi, S. F.** See El-Shinnawy, N. A., 3901
**El-Kalyoubi, S. F.** See El-Shinnawy, N. A., 4329
**El-Karim, I. A. G.** See Shaaban, A. F., 3855
**Ellis, B.**
—; Rashid, H. U.: Water Absorption Isotherms for Cured Bisphenol A Type Epoxy Resins: Effects of Isotherm Temperature and Resin Hardener, 2021
**Ellison, M. A.** See Hsieh, Y.-L., 3547

**El-Shinnawy, N. A.**
—; El-Kalubi, S. F.: Mechanical Properties of Paper Sheets Prepared from Carbamoylethylated Wood Pulp, 3901
—; El-Kalyoubi, S. F.: Mechanical Properties of Paper Sheets Prepared from Partially Cyanoethylated Wood Pulp, 4329
**Ernes, D. A.**
—; Garg, B. K.; Williams, R. C.: A Comparative Study of Branched and Linear Dialkyl Phthalate Plasticizer Surface Levels and Their Effects on Adhesive Bonds in Flexible PVC, 383
**Escoubes, M.**
—; Pineri, M.; Gauthier, S.; Eisenberg, A.: Ion Clustering in Styrene-Based Ionomers: Calorimetric and Gravimetric Hydration Studies and Effect of Ion Concentration and Thermal History, 1249

**Fagerburg, D. R.**
Kinetics of Phthalic Anhydride/Ethylene Carbonate Reactions, 4287
**Fajnik, D.** See Petrovic, Z. S., 1031
**Fanta, G. F.**
—; Burr, R. C.; Doane, W. M.: Graft Polymerizations of Acrylonitrile and Methyl Acrylate onto Starch and Cellulose at Different Stirring Speeds (Note), 4449
**Fanter, D. L.** See Grayson, M. A., 2677
**Farris, R. J.** See Chee, K. K., 2529; Lyon, R. E., 2857; Pottick, L. A., 3915
**Fedorko, P.** See Vander Donckt, E., 619
**Feijen, J.** See Kohn, F. E., 4265
**Felder, R. M.** See Patton, C. J., 1095
**Feldman, D.** See Blaga, A., 3421
—; Blaga, A.; Coriaty, E.: Modification of Epoxy Polymer by Plasticizing, Blending, or Reinforcing, 515
**Fellers, J. F.** See Min, K., 2117
**Fernandes, A. C.**
—; Barlow, J. W.; Paul, D. R.: Aliphatic Polyester Miscibility with Polyepichlorohydrin, 1971
**Fernandez-Prini, R.**
—; Schulman, P.: The Effect of Temperature on the Stability of Ion-Exchange Resins in Aqueous Medium, 341
**Focher, B.**
—; Marzetti, A.; Sarto, V.; Beltrame, P. L.; Carniti, P.: Cellulosic Materials: Structure and Enzymatic Hydrolysis Relationships, 3329
**Fohlen, G. M.** See Achar, B. N., 353
**Foks, J.** See Balas, A., 2261
**Fornes, R. E.** See Netravali, A. N., 311
**Foux, A.** See Kost, J., 3937
**Frick, J. G., Jr.**
—; Harper, R. J., Jr.: Acetals as Crosslinking Reagents for Cotton, 1433
**Frigon, R. P.** See Leypoldt, J. K., 3533
**Frisch, K. C.** See Hsu, S. L., 2467
**Fujino, N.** See Miyauchi, S., 4461
**Fukuda, A.** See Lee, J. Y., 795, 3813
—; Hasegawa, K.; Horiuchi, H.: Studies on the Improvement of Cured Two-Stage Phenolics Performance. III. Relation between Conditions of Heat Treatment and Properties of Wood-Flour-Filled Phenolics, 2395
**Furlan, L. T.** See De Paoli, M-A., 2493
**Furlanetto, F.** See Musiani, M. M., 4433
**Furuhata, K.** See Kojima, Y., 533
**Furuhata, K.-I.** See Danno, T., 3171

**Gadalla, A. M.**
—; El-Derini, M. E.: Impregnation of Mortars with Monomers and Their Radiolytic Polymerization, 3027
**Gadkaree, K. P.**
—; Kardos, J. L.: Prediction and Measurement of Fatigue Lifetime Distributions for Elastomeric Biomaterials, 3041
**Gagnon, D. R.**
—; McCarthy, T. J.: Polymer Surface Reconstruction by Diffusion of Organic Functional Groups from and to the Surface, 4335
**Galanti, A. V.**
A Kinetic Study of the Polymerization of Aliphatic Imides, 1611
**Galgoci, E. C.** See Runt, J., 611
**Gallardo, J. A.** See Munoz-Escalona, A., 1187
**Gardner, J. R.** See McKay, G., 1499
**Garg, B. K.** See Ernes, D. A., 383
**Garg, S. K.**
Critical Stress for Crystallization in the Threadline during High-Speed Spinning of Poly(ethylene Terephthalate), 2111
**Garton, A.** See Clark, J. N., 3381; Daly, J., 1403
**Gauthier, S.** See Escoubes, M., 1249
**Gautier, M.** See Di Giulio, C., 1771
**George, A.**
—; Radhakrishnan, G.; Joseph, K. T.: Grafting of Ethyl Acrylate onto Gelatin (Note), 703
**Getts, R. G.** See Lattimer, R. P., 3783
**Getz, S.** See Ram, A., 2501
**Ghatge, N. D.** See Mahajan, S. S., 607
—; Sabne, M. B.; Gujar, K. B.; Mahajan, S. S.: Modified Cellulose Acetate Membranes for Desalination, 1743
**Ghosh, A. K.** See Gupta, S. K., 3217
**Gilbert, R. D.** See Netravali, A. N., 311
**Gillham, J. K.** See Aronhime, M. T., 2017; Chan, L. C., 3307
**Giori, C.**
—; Yamauchi, T.: Effects of Ultraviolet and Electron Radiations on Graphite-Reinforced Polysulfone and Epoxy Resins, 237
**Giusti, P.** See Maschio, G., 1215
**Glasser, W. G.** See Saraf, V. P., 1831; Wu, L. C.-F., 1111
—; Barnett, C. A.; Rials, T. G.; Saraf, V. P.: Engineering Plastics from Lignin. II. Characterization of Hydroxyalkyl Lignin Derivatives, 1815
**Goel, H. R.** See Mukherjee, A. K., 1327
**Gogolewski, S.** See Leenslag, J. W., 2829
**Goh, S. H.**
—; Nguyen, T. T.; Siow, K. S.: Miscibility of Poly(neopentyl Glycol Adipate) with Chlorinated Polypropylene and with Vinyl Chloride/Vinyl Acetate Copolymers (Note), 1463
—; Siow, K. S.; Yap, K. S.: Miscibility of Poly(styrene-co-Acrylonitrile) and Poly(α-Methyl Styrene-co-Acrylonitrile) with Copolymers of Methyl Methacrylate, 99
**Gostoli, C.**
—; Pilati, F.; Sarti, G. C.; Di Giacomo, B.: Chemical Kinetics and Diffusion in Poly(butylene Terephthalate) Solid-State Polycondensation: Experiments and Theory, 2873
**Goto, K.** See Takayanagi, M., 2057, 2547
**Gozdz, A. S.**
—; Weigmann, H.-D.: Surface Characterization of Intact Fibers by Inverse Gas Chromatography, 3965
**Grabovac, I.**
—; Mestan, S. A.; Morris, C. E. M.: The Effect of Freeze-Thaw Cycling on Some Structural Film Adhesives (Note), 4407
**Graczyk, T.**
—; Hornof, V.: Effect of Stirring on Cellulose Graft Copolymerization. III. Acrylic and Methacrylic Monomers, 4247
—; Hornof, V.: Flocculation of Metal-Bearing Waste Waters Using Cellulose and Its Graft Copolymers, 1903
**Graf, K. R.** See Dutta, P. K., 2247
**Granger, R.** See Sadr-Bazaz, A., 955
**Grayson, M. A.**
—; Fanter, D. L.: A Method for Casting Thin Epoxy Films (Note), 2677

**Griffith, G. W.**
—; Long, C. L.; Smith, R. E.: Determination of Pendant Allyl and Monomer Content in Polydiallylphthalate, 407
**Grinshpun, V.**
—; O'Driscoll, K. F.; Rudin, A.: On the Accuracy of SEC Analyses of Molecular Weight Distributions of Polyethylenes, 1071
**Guerra, G.**
—; Moschetti, A.; Carfagna, C.; Mandara, U.; Cutolo, A.; Solimeno, S.: Additives in Transparent Glassy Polymers: Concentration Profiles Obtained by Solvent Diffusion Technique, 2271
**Gujar, K. B.** See Ghatge, N. D., 1743
**Gupta, A. K.** See Gupta, V. B., 3115, 3727, 4203, 4219
—; Purwar, S. N.: Crystallization of PP in PP/SEBS Blends and Its Correlation with Tensile Properties, 1595
—; Purwar, S. N.: Investigation of the Effect of Blending Techniques through Tensile Yield Behavior of PP/SEBS Blends, 3513
—; Purwar, S. N.: Melt Rheological Properties of Polypropylene/SEBS (Styrene–Ethylene Butylene–Styrene Block Copolymer) Blends, 1079
**Gupta, D. K.**
—; Broughton, R. M.: Effect of Hollow Core on the Rigidity of Fine Fibers, 2537
**Gupta, J. P.**
—; Sefton, M. V.: Absorption of Dicumyl Peroxide by Extruded Polyethylene: Difference between Surface and Bulk Morphology, 2383
**Gupta, S. K.** See Gupta, S. K., 3217; Kumar, A., 1045
—; Damania, B. S.; Kumar, A.: Optimization of Nylon 6 Reactors with End-Point Constraints, 2177
—; Ghosh, A. K.; Gupta, S. K.; Kumar, A.: Analysis of Wiped Film Reactors Using the Orthogonal Collocation Technique, 3217
**Gupta, V. B.**
—; Ramesh, C.; Gupta, A. K.: Structure–Property Relationship in Heat-Set Poly(ethylene Terephthalate) Fibers. I. Structure and Morphology, 3115
—; Ramesh, C.; Gupta, A. K.: Structure–Property Relationship in Heat-Set Poly(ethylene Terephthalate) Fibers. II. Thermal Behavior and Morphology, 3727
—; Ramesh, C.; Gupta, A. K.: Structure–Property Relationship in Heat-Set Poly(ethylene Terephthalate) Fibers. III. Stress–Relaxation Behavior, 4203
—; Ramesh, C.; Gupta, A. K.: Structure–Property Relationships in Heat-Set Poly(ethylene Terephthalate) Fibers. IV. Recovery Behavior, 4219
**Guven, O.** See Deniz, V., 433

**Ha, W. S.** See Seo, S. W., 567
**Hagege, R.** See Oudet, C., 4363
**Hagiwara, M.** See Makuuchi, K., 965
**Haidar, B.**
—; Vidal, A.; Balard, H.; Donnet, J. B.: Structural Differences Exhibited by Networks Prepared by Chemical and Photochemical Reactions. III. Characterization by Inverse GPC, 4309
**Haines, P. J.** See Skinner, G. A., 763
**Hajek, K.** See Kastanek, A., 447
**Hallos, R. S.**
A "Chain Fold Band" in the Infrared Spectra of Nylon 6, 3907
**Hamada, R.** See Takenaga, M., 2245
**Hamed, A. A.** See Shaaban, A. F., 3855
**Han, C. D.** See Chuang, H-K., 2205; Kim, Y. J., 2359; Yang, H.-H., 4465
—; Kwack, T. H.; Luo, H-L.: Effects of Coupling Agent on the Rheological Behavior and Processability of Polypropylene, 2599
—; Lem, K-W.: Chemorheology of Thermosetting Resins. IV. The Chemorheology and Curing Kinetics of Vinyl Ester Resin, 1879
**Harada, K.** See Ogawa, N., 2851
**Harper, R. J., Jr.** See Frick, J. G., Jr., 1433
**Harrell, E. R.**
—; Nakajima, N.: Modified Cole–Cole Plot Based on Viscoelastic Properties for Characterizing Molecular Architecture of Elastomers, 995
**Hartmann, B.** See Lee, G. F., 1471
**Hasegawa, K.** See Fukuda, A., 2395
**Hashida, I.** See Koyama, K., 2929
**Hasirci, N.** See Akovali, G., 2617
**Hassanin, M. S.** See Moustafa, A. B., 3677
**Hatano, M.** See Murakami, S., 3445
**Hayakawa, K.**
—; Kawase, K.; Yamakita, H.: Depolymerization of Fluoroalkyl Methacrylate Polymers as Studied with Thermogravimetry, 4061
**Hayase, S.**
—; Suzuki, S.; Wada, M.; Inoue, Y.; Mitui, H.: Polymerization of Epoxide with Aluminum Complex/Silanol Catalyst. VII. Thermal and Electrical Properties of Epoxy Resin Cured with the New Catalyst, 269
**Hedren, A. M.** See Hill, C. G., Jr., 2749
**Heffernan, J. G.**
—; Sherrington, D. C.: Polystyrene Gel Permeation Chromatography Packings Grafted with Polar Monomers—Synthesis and Use in Aqueous Organic Mobile Phases, 3013
**Henderson, L. W.** See Leypoldt, J. K., 3533
**Hernandez, J. G.** See Munoz-Escalona, A., 1187
**Hill, C. G., Jr.**
—; Hedren, A. M.; Myers, G. E.; Koutsky, J. A.: Raman Spectroscopy of Urea–Formaldehyde Resins and Model Compounds, 2749
**Hiltz, T.** See Lee, G. F., 3057
**Hinkley, J. A.**
Network Structure in Bisphthalonitrile Polymers, 3339
**Hirai, M.** See Yamamoto, M., 2981
**Hiramatsu, T.** See Azuma, C., 481
**Hoff, A.**
—; Jacobsson, S.: Thermal Oxidation of Polypropylene in the Temperature Range of 120–280°C, 465
**Hoffman, A. S.** See Cohn, D., 2645
**Hollmark, H.** See Westerlind, B., 175
**Hon, D. N.-S.**
ESCA Study of Oxidized Wood Surfaces, 2777
**Honmyo, K.** See Ogawa, N., 2851
**Hopkins, M. W.**
—; Antal, M. J., Jr.; Kay, J. G.: Radiant Flash Pyrolysis of Biomass Using a Xenon Flashtube, 2163
**Horiuchi, H.** See Fukuda, A., 2395
**Hornof, V.** See Graczyk, T., 1903, 4247
**Hoshino, H.**
—; Jin, J.-I.; Lenz, R. W.: Liquid Crystalline Behavior of Polymeric Glycols Terminated with Aromatic Diester and Diacid Mesogenic Groups, 547
**Hou, A.-C.** See Vrentas, J. S., 399
**Hourston, D. J.**
—; Satgurunathan, R.: Latex Interpenetrating Polymer Networks Based on Acrylic Polymers. I. Predicted and Observed Compatibilities, 2969
—; Zia, Y.: Semi- and Fully Interpenetrating Polymer Networks Based on Polyurethane–Polyacrylate Systems. IV. Grafted Semi-1-Interpenetrating Polymer Networks, 629
—; Zia, Y.: Semi- and Fully Interpenetrating Polymer Networks Based on Polyurethane–Polyacrylate Systems. V. An Isomerically Related Semi-1-Interpenetrating Polymer Network System, 2951
—; Zia, Y.: Semi- and Fully Interpenetrating Polymer Networks Based on Polyurethane–Polyacrylate Systems. VI. Polyurethane–Poly(methyl Acrylate-co-Ethyl Acrylate) Semi-1-Interpenetrating Polymer Networks, 2963

**Hsich, H. S. Y.**
—; Yanyo, L. C.; Ambrose, R. J.: A Hybrid Model for Mechanical Spectra of Filled and Unfilled Elastomers, 413
—; Yanyo, L. C.; Ambrose, R. J.: A Relaxation Model for Property Changes During the Cure Reaction of Filled and Unfilled Silicone Elastomers, 2331
**Hsieh, Y.-L.** See Pugh, C., 3641
—; Pugh, C.; Ellison, M. A.: The Effects of Selected Organic Solvents on the Polymerization of Acrylic Acid to Poly(ethylene Terephthalate) by Glow Discharge, 3547
**Hsu, S. L.**
—; Xiao, H. X.; Szmant, H. H.; Frisch, K. C.: Polyurethane Ionomers. I. Structure–Properties Relationships of Polyurethane Ionomers, 2467
**Huang, R. Y. M.** See Boyd, D., 595; Lau, W. W. Y., 1531
—; Kim, J. J.: Synthesis and Transport Properties of Thin Film Composite Membranes. I. Synthesis of Poly(phenylene Oxide) Polymer and Its Sulfonation, 4017
—; Kim, J. J.: Synthesis and Transport Properties of Thin Film Composite Membranes. II. Preparation of Sulfonated Poly(phenylene Oxide) Thin Film Composite Membranes for the Purification of Alberta Tar Sands Waste Waters, 4029
**Hutchenson, K. W.**
—; Edie, D. D.; Riggs, D. M.: Radial Temperature Differences During the Melt Spinning of Fibers, 3621

**Iannone, M.** See Apicella, A., 2083
**Ichimura, H.** See Toi, K., 2413
**Ide, S.**
—; Ogawa, T.; Kuroki, T.; Ikemura, T.: Controlled Degradation of Polystyrene, 2561
**Igarashi, Y.** See Oikawa, E., 1723
**Igawa, M.**
—; Tachibana, T.; Tanaka, M.; Seno, M.: Selective Permeation Properties of Ions through Piezodialysis Membrane (Note), 709
—; Torii, K.; Tanaka, M.; Seno, M.: Selective Ion Permeation through Fluorocarbon Polymer Membrane, 117
**Iijima, T.** See Kuramoto, N., 977
**Ikari, M.** See Egawa, H., 2045
**Ikemoto, I.** See Toi, K., 2413
**Ikemura, T.** See Ide, S., 2561; Saido, K., 3261
**Ikenouchi, M.** See Tsujita, Y., 4279
**Ikladious, N. E.**
—; Messiha, N. N.; Shaaban, A. F.: Organotin Polymers. VII. Copolymerization of Triphenyltin Methacrylate with Some Acrylic and Methacrylic Acid Esters, 509
**Inagaki, H.**
—; Donkai, N.; Saitoh, A.; Zenitani, Y.: Molecular Characterization of Hydroxyl-Terminated Polybutadienes, 3741
**Inagaki, N.**
—; Kondo, S.; Murakami, T.: Preparation of Siloxane-Like Films by Glow Discharge Polymerization, 3595
—; Yamazaki, H.: Role of Unsaturated Groups in Glow Discharge Polymerization, 1369
**Inoue, H.**
—; Kohama, S.: Surface Photografting of Hydrophilic Vinyl Monomers onto Diethyldithiocarbamated Polydimethylsiloxane, 877
**Inoue, T.** See Yano, T., 1287
**Inoue, Y.** See Hayase, S., 269
**Inukai, M.** See Tsujita, Y., 4279
**Ishihara, K.**
—; Muramoto, N.; Shinohara, I.: Controlled Release of Organic Substances Using Polymer Membrane with Responsive Function for Amino Compounds, 211
**Ishikawa, K.** See Sumita, M., 1523; Tanioka, A., 583
**Ishimaru, Y.**
—; Lindstrom, T.: Adsorption of Water-Soluble, Nonionic Polymers onto Cellulosic Fibers, 1675
**Ishizu, A.** See Isogai, A., 2097, 3873
**Isogai, A.**
—; Ishizu, A.; Nakano, J.: Preparation of Tri-*O*-benzylcellulose by the Use of Nonaqueous Cellulose Solvents, 2097
—; Ishizu, A.; Nakano, J.: Preparation of Tri-*O*-substituted Cellulose Ethers by the Use of a Nonaqueous Cellulose Solvent, 3873
**Ito, J.**
—; Mitani, K.; Mizutani, Y.: Annealing of Polypropylene–Poly(ethylene-co-propylene) Blends. I. Thermal and Physical Properties of Blends, 75
**Ito, T.** See Toi, K., 2413
**Iwanaga, H.** See Lee, J. Y., 795, 3813
**Iyer, K. R. K.** See Nachane, R. P., 4055
**Izydorczyk, J.**
—; Salwinski, J.: Application of Thermal Conductivity Detection for Investigating the Diffusion of Component X in the System: A Mixture of Vapors of X and Y Substances–Polymer Membrane–Y Substance Vapor, 3663

**Jacobsson, S.** See Hoff, A., 465
**Jang, B. Z.**
—; Uhlmann, D. R.; Vander Sande, J. B.: Crystalline Morphology of Polypropylene and Rubber-Modified Polypropylene, 4377
—; Uhlmann, D. R.; Vander Sande, J. B.: Ductile–Brittle Transition in Polymers, 3409
**Janik, H.** See Balas, A., 2261
**Jasse, B.** See Di Giulio, C., 1771
**Jayakrishnan, A.**
—; Shah, D. O.: Phase-Transfer-Catalyzed Polymerization of Acrylonitrile (Note), 2937
**Jerome, R.** See Borsus, J. M., 1857
**Jiang, C.-Y.** See Ning, Y.-P., 3209
—; Mark, J. E.; Stebleton, L.: Ultimate Properties of Filled Bimodal Networks Containing a Nonvolatile Diluent (Note), 4411
**Jin, J.-I.** See Hoshino, H., 547
**Jo, W. H.** See Seo, S. W., 567
**Jones, F. N.**
—; Lin, I.-C.: *N*-(2-Hydroxyalkyl) Amides as Internally Blocked Crosslinkers for Epoxy Resins (Note), 3213
**Joseph, K. T.** See George, A., 703; Mohan, D., 329
**Joshi, M. G.**
—; Rodriguez, F.: Photoinitiated Polymerization of 1-Vinylimidazole, 1345

**Kadariah, S.** See Sundardi, F., 1515
**Kaetsu, I.** See Kumakura, M., 2713
**Kaito, A.**
—; Nakayama, K.; Kanetsuna, H.: Microstructure of Biaxially Drawn Ultrahigh Molecular Weight Polyethylene, 2347
**Kajiyama, T.** See Washizu, S., 3955
**Kakuta, A.** See Tanioka, A., 583
**Kalnins, M. A.**
Photochemical Degradation of Acetylated, Methylated, Phenylhydrazine-Modified, and ACC-Treated Wood, 105
**Kalpagam, V.** See Kumar, G. S., 3075
**Kamath, Y. K.**
—; Dansizer, C. J.; Weigmann, H. D.: Surface Wettability of Human Hair. I. Effect of Deposition of Polymers and Surfactants, 1011
**Kanetsuna, H.** See Kaito, A., 2347
**Kanicki, J.** See Vander Donckt, E., 619
**Kaplan, A. M.** See Cornell, J. H., 2581
**Karasz, F. E.** See Xie, S., 2679
**Karayannis, N. M.**
—; Khelghatian, H. M.; Skryantz, J. S.: Stabilizing Additives for Polypropylenes Prepared by Solventless Processes (Note), 4421
**Kardos, J. L.** See Gadkaree, K. P., 3041

**Kastanek, A.**
—; Zelenka, J.; Hajek, K.: The Viscosity of an Unsaturated Polyester, 447
**Katayose, T.** See Takayanagi, M., 141
**Katime, I.**
—; Ochoa, J. R.: Viscosity–Temperature Relationships for Dilute Solutions of Poly(cyclohexyl Methacrylate) in Methyl Isobutyl Ketone (Note), 4427
**Kausch, H. H.** See Nguyen, T. Q., 455
**Kawaguchi, H.** See Ohtsuka, Y., 3295
**Kawaguchi, T.**
—; Tamura, K.: Chlorine-Resistant Membrane for Reverse Osmosis. I. Correlation between Chemical Structures and Chlorine Resistance of Polyamides, 3359
—; Tamura, H.: Chlorine-Resistant Membrane for Reverse Osmosis. II. Preparation of Chlorine-Resistant Polyamide Composite Membranes, 3369
**Kawase, K.** See Hayakawa, K., 4061
**Kay, J. G.** See Hopkins, M. W., 2163
**Keitz, J. D.**
—; Barlow, J. W.; Paul, D. R.: Polycarbonate Blends with Styrene/Acrylonitrile Copolymers, 3131
**Kennedy, J. P.** See Bagrodia, S., 3065; Mohajer, Y., 1943
**Khanna, Y. P.**
—; Turi, E. A.; Sibilia, J. P.; Sacks, W.: High-Temperature Aging of Halar Film. I. Study of Physicochemical Changes, 3607
**Khelghatian, H. M.** See Karayannis, N. M., 4421
**Khisti, R. S.** See Mahajan, S. S., 607
**Kim, J.** See Mijovic, J., 1449
**Kim, J. J.** See Huang, R. Y. M., 4017, 4029
**Kim, M.**
—; Neogi, P.: Concentration-Induced Stress Effects in Diffusion of Vapors through Polymer Membranes, 731
**Kim, Y. J.**
—; Han, C. D.; Song, B. K.; Kouassi, E.: Mechanical and Transport Properties of Coextruded Films, 2359
**Kimizuka, Y.** See Nagai, T., 3479
**Kimura, E.** See Koyama, K., 2929
**Kimura, K.**
—; Shigemura, T.; Yuasa, S.: Characterization of Ethylene-1-Butene Copolymer by Differential Scanning Calorimetry and $^{13}C$-NMR Spectroscopy, 3161
**Kimura, M.**
—; Salee, G.; Porter, R. S.: Blends of Poly(ethylene Terephthalate) and a Polyarylate Before and After Transesterification, 1629
**King, J. G.** See Ludlam, P. R., 3863
**Kinjo, N.** See Yokoyama, T., 1951, 2665
**Kinoshita, A.** See Naito, I., 4115
**Kiparissides, C.** See Thomas, I. M., 2195
**Kirisawa, M.** See Saido, K., 3261
**Kishimoto, W.** See Makoto, I., 373
**Kissin, Y. V.** See Bozik, J. E., 3491
—; Beach, D. L.: Kinetics of Ethylene Polymerization at High Temperature with Ziegler–Natta Catalysts, 1171
**Kleckova, Z.** See Snuparek, J., Jr., 1
**Klein, A.** See Lowry, V., 3925
**Kobayashi, A.** See Ohtani, N., 1537
**Kobayashi, Y.** See Osawa, Z., 2843; Otomo, S., 89
**Kohama, S.** See Inoue, H., 877
**Kohn, F. E.**
—; Van Den Berg, J. W. A.; Van De Ridder, G.; Feijen, J.: The Ring-Opening Polymerization of D,L-Lactide in the Melt Initiated with Tetraphenyltin, 4265
**Kojima, Y.**
—; Furuhata, K.; Miyasaka, K.: Diffusive Permeability of Solutes in Poly(vinyl Alcohol) Membranes as a Function of the Degree of Hydration, 533
**Kolinsky, M.** See Lukas, R., 901
**Komiyama, J.** See Kuramoto, N., 977
**Kondo, H.** See Sato, M., 299
**Kondo, S.** See Inagaki, N., 3595
**Kondoh, H.** See Danno, T., 3171
**Konishi, H.** See Cha, Y. S., 2941
**Korngold, E.** See Belfer, S., 3825
**Koros, W. J.** See Patton, C. J., 1095
**Koshijima, T.** See Maekawa, E., 2289
**Kost, J.**
—; Narkis, M.; Foux, A.: Resistivity Behavior of Carbon-Black-Filled Silicone Rubber in Cyclic Loading Experiments, 3937
**Kotzev, D. L.**
—; Pearce, E. M.; Kwei, T. K.: Studies on the Compatibility of Poly(styrene-co-Vinyl-Phenyl Hexafluorodimethyl Carbinol) with Nylon 6,12 and *N,N'*-Dimethyl-Substituted Nylon 6,12 (Note), 4443
**Kouassi, E.** See Kim, Y. J., 2359
**Kourtides, D. A.** See Mikroyannidis, J. A., 197, 941
**Koutsky, J. A.** See Hill, C. G., Jr., 2749
**Koyama, K.**
—; Kimura, E.; Hashida, I.; Nishimura, M.: Rejection of Phenolic Derivatives in Aqueous Solution by an Interpolymer Anionic Composite Reverse Osmosis Membrane, 2929
**Kroenke, W. J.** See Lattimer, R. P., 3783
**Krzystek, H.** See Narebska, A., 1475
**Kukacka, L. E.** See Sugama, T., 2889
**Kumakura, M.**
—; Kaetsu, I.: Immobilization of Cellulase Using Porous Polymer Matrix, 2713
**Kumar, A.** See Gupta, S. K., 2177, 3217
—; Sharma, S. N.; Gupta, S. K.: Optimization of the Polycondensation Stage of Poly(ethylene Terephthalate) Reactors, 1045
**Kumar, G. S.**
—; Kalpagam, V.; Nandi, U. S.: Biodegradation of Gelatin-*g*-Poly(ethyl Acrylate) Copolymers. II, 3075
**Kuno, H.** See Suganuma, K., 3241
**Kuo, C-Y.** See Malihi, F. B., 925
**Kuramoto, M.** See Tanioka, A., 583
**Kuramoto, N.**
—; Sakamoto, M.; Teshirogi, T.; Iijima, T.; Komiyama, J.: Carboxyl-Containing Polyesters and Polyurethanes from Dibenzyl L-Tartrate, 977
**Kuroda, H.** See Osawa, Z., 2843
**Kuroki, T.** See Ide, S., 2561; Saido, K., 3261
**Kusuki, Y.** See Ashitaka, H., 2763
**Kuze, E.** See Lee, J. Y., 795, 3813
**Kwack, T. H.** See Han, C. D., 2599
**Kwei, T. K.** See Kotzev, D. L., 4443

**Lablache-Combier, A.** See Deledalle, P., 125; M'Bon, G., 651
**Larsen, F.** See Smith, R. E., 3713
**Larsen, F. N.** See Smith, R. E., 3697
**Lattimer, R. P.**
—; Kroenke, W. J.; Getts, R. G.: Effects of Copper and Molybdenum Oxides on the Pyrolysis of Model Compounds of Poly(vinyl Chloride), 3783
**Lau, W. W. Y.**
—; Burns, C. M.; Huang, R. Y. M.: Compatibility of Polystyrene and Poly(methyl Methacrylate) of Various Molecular Weights in Toluene, 1531
**Law, K-S.** See Burfield, D. R., 1661
**Lecacheux, D.**
—; Lesec, J.; Quivoron, C.; Prechner, R.; Panaras, R.; Benoit, H.: High-Temperature Coupling of High-Speed GPC with Continuous Viscometry. II. Ethylene–Vinyl Acetate Copolymers, 1569
**Ledwith, A.** See Abu-Zeid, M. E., 2431, 2443
**Lee, G. F.**
—; Hartmann, B.: Effects of Test Frequency and Cure on Glass Transition Temperature Predictions on Some Epoxy Polymers, 1[illegible]
—; Hiltz, T.: Dielectric and Dynamic Mechanical Measurements of Poly(4-methyl Pentene-1), 3057

**Lee, J. Y.**
—; Ohtsuka, K.; Takezoe, H.; Fukuda, A.; Kuze, E.; Iwanaga, H.: X-Ray Analysis of α-, β-, and γ-Phase Ag–Hg Alloy Films Produced on Polymer Substrates by Casting Polyacrylamide–$AgNO_3$ Aqueous Solution in Hg Atmosphere, 3813
—; Tanaka, H.; Takezoe, H.; Fukuda, A.; Kuze, E.; Iwanaga, H.: Novel Method of Preparing Ag–Hg Alloy on Polyacrylamide Films and Their Structure, 795
**Lee, M. C. H.**
The Effects of Degree of Mixing on the Properties of Filled Elastomers, 499
**Lee, S. N.** See Lo, J., 35
**Leenslag, J. W.**
—; Gogolewski, S.; Pennings, A. J.: Resorbable Materials of Poly(L-lactide). V. Influence of Secondary Structure on the Mechanical Properties and Hydrolyzability of Poly(L-lactide) Fibers Produced by a Dry-Spinning Method, 2829
**Leidi, G.** See Bellobono, I. R., 3185
**Lem, K-W.** See Han, C. D., 1879
**Lemanska, G.** See Narebska, A., 1483
**Lenz, R. W.** See Hoshino, H., 547
**Lesec, J.** See Lecacheux, D., 1569
**Lever, T. J.** See Skinner, G. A., 763
**Leypoldt, J. K.**
—; Frigon, R. P.; Henderson, L. W.: Chromatogram Broadening of Proteins and Dextrans in Size Exclusion Chromatography, 3533
**Liang, F.**
—; Dreyfuss, P.: Durability of Adhesive Bonds between Glass or Metal Substrates and a Polybutadiene–Polyurethane, 3147
**Lim, K-L.** See Burfield, D. R., 1661
**Lin, I.-C.** See Jones, F. N., 3213
**Lindstrom, T.** See Brown, W., 823; Ishimaru, Y., 1675
**Lipatov, Y. S.**
—; Dmitruk, N. V.; Tsukruk, V. V.; Shilov, V. V.; Priss, L. S.; Dashevsky, L. I.: Microphase State of Oligobutadienediol-Based Polyurethaneureas, 1919
**Lo, J.**
—; Lee, S. N.; Pearce, E. M.: Photo-Fries Rearrangement of Fluorene-Based Polyarylates, 35
**Lokhande, H. T.** See Chidambareswaran, P. K., 837
—; Sirmour, S. G.; Shukla, S. R.; Sinha, S. B.; Patil, N. B.; Chidambareswaran, P. K.: Swelling of Cotton Fibers in Ethylenediamine–Morpholine Mixtures, 2421
—; Teli, M. D.; Rao, K. N.; Rao, M. H.: Grafting onto Polyester Fibers. IV. Synergism during Graft Copolymerization of Binary Mixtures of Vinyl Monomers onto Polyester Fibers, 1843
—; Thakar, V. S.; Shukla, S. R.: Electrokinetic Properties of Acrylic Acid- and Methacrylic Acid- Grafted Polypropylene during Chemically Initiated Graft Copolymerization, 2989
**Long, C. L.** See Griffith, G. W., 407; Smith, R. E., 3697, 3713
**Loucheux, C.** See Deledalle, P., 125; M'Bon, G., 651
**Lowry, V.**
—; El-Aasser, M. S.; Vanderhoff, J. W.; Klein, A.: Mechanical Coagulation in Emulsion Polymerizations, 3925
**Ludlam, P. R.**
—; King, J. G.: Size Exclusion Chromatography of Urea Formaldehyde Resins in Dimethylformamide Containing Lithium Chloride, 3863
**Lukas, R.**
—; Tyrackova, V.; Kolinsky, M.: Structural Heterogeneities of Suspension Poly(vinyl Chloride). I. Compact Glassy Particles, 901
**Lundberg, R. D.** See Weiss, R. A., 2719
**Luo, H-L.** See Han, C. D., 2599
**Lye, P. H.**
—; Toh, H. K.: Study of Rubber Oxidation by Thermoanalysis, 2627
**Lyon, R. E.**
—; Wang, D. X.; Farris, R. J.; MacKnight, W. J.: Polyurethane–Urea Elastomers as Working Substances in Rubber Heat Engines, 2857

**MacKnight, W. J.** See Lyon, R. E., 2857; Nakano, Y., 1041; Xie, S., 2679
**MacLaury, M. R.** See Schroll, A. L., 3883
**Macosko, C. W.** See Castro, J. M., 1959
**Maeda, H.**
—; Egawa, H.: Studies of Selective Adsorption Resins. XVIII. The Influence of Porosity of Macroreticular Chelating Resin on Adsorption of Heavy Metal Ions in an Aqueous Solution, 2281
**Maekawa, E.**
—; Koshijima, T.: Properties of 2,3-Dicarboxy Cellulose Combined with Various Metallic Ions, 2289
**Maekawa, T.**
—; Nishide, H.; Tsuchida, E.; Ohmichi, H.; Okamoto, J.: Complexation of Samarium Ion with Poly(acrylic Acid) Grafted onto Polyethylene by Radiation-Induced Method, 3795
**Maerov, S. B.**
—; Avakian, P.; Matheson, R. R., Jr.: Photoinduced Tension of Polymers, 2797
**Mahajan, S. S.** See Ghatge, N. D., 1743
—; Ghatge, N. D.; Khisti, R. S.: Thiol Modification of Difunctional Castor Oil and Its Utility as Room Temperature Setting Elastomeric Material, 607
**Maiti, M. M.** See Bhattacharya, V. K., 2069
**Maiti, S.** See Bhattacharya, V. K., 2069
**Majerus, M. S.**
—; Soong, D. S.; Prausnitz, J. M.: Experimental Measurements and Monte Carlo Simulation of Water Diffusion into Epoxy Matrices, 2453
**Makani, S.**
—; Brigodiot, M.; Marechal, E.; Dawans, F.; Durand, J.-P.: Thermal Stability, Fractionation, and Chemical Modification of Chlorinated Rubbers. I. Infrared and $^{13}C$-NMR Study of the Structure of Chlorinated Natural Rubber Modified under Various Experimental Conditions, 4081
—; Brigodiot, M.; Marechal, E.; Durand, J.-P.; Dawans, F.: Chemical Modifications of Chlorinated Rubbers. II. Study of Chlorinated Natural Rubber Modified by Amino–Esters, 4091
**Makoto, I.**
—; Kishimoto, W.; Okita, K.; Nakayama, H.: Improvement of Impact Fatigue Strength of Adhesive Joint by CTBN Modification, 373
**Makuuchi, K.**
—; Hagiwara, M.: Radiation Vulcanization of Natural Rubber Latex with Polyfunctional Monomers, 965
**Maldas, D.** See Bhattacharyya, S. N., 1559
**Malihi, F. B.**
—; Kuo, C.-Y.; Provder, T.: Determination of the Absolute Molecular Weight of a Styrene–Butyl Acrylate Emulsion Copolymer by Low-Angle Laser Light Scattering (LALLS) and GPC/LALLS, 925
**Mandara, U.** See Guerra, G., 2271
**Marafi, M. A.** See Abu-Zeid, M. E., 2431
**Marcandalli, B.** See Bellobono, I. R., 3185
**Marechal, B.** See Bassani, L. C., 2785
**Marechal, E.** See Makani, S., 4081, 4091
**Mark, J. E.** See Jiang, C.-Y., 4411; Ning, Y.-P., 3209
—; Tang, M.-Y.: Multi-Phase Elastomeric Networks Prepared from Poly(Dimethylsiloxane) and Butadiene–Acrylonitrile Copolymer (Note), 4455
**Martin, G. C.** See Srinivasan, B., 2231
**Martin, J. W.**
A Stochastic Model for Predicting the Service Life of Photolytically Degraded Poly(methyl Methacrylate) Films, 777

**Martinez, G.**
—; Mijangos, C.; Millan, J.: Influence of Tacticity on the Thermal Degradation of PVC. VI. New Advances in the Degradation Process through the Behavior of Modified PVC Samples, 1735
**Marzetti, A.** See Focher, B., 3329
**Maschio, G.**
—; Artigiani, F.; Di Maina, M.; Giusti, P.: Modeling of Polymerization Reactions. I. The Cationic Polymerization of Isobutylene by Aluminum Organic Compounds, 1215
**Mashelkar, R. A.** See Ravindranath, K., 437
**Mashimo, S.** See Ashida, M., 661, 4107
**Masiulanis, B.**
Thermoplastic Polyurethane Elastomers—Thermostability in Relation to Composition, 681
**Masuda, S.**
—; Asano, N.: Effect of Electrical Field on Crazing Test of Enameled Wire in Water, 1309
**Matheson, R. R., Jr.** See Maerov, S. B., 2797
**Mathew, N. M.**
—; De, S. K.; Chakraborty, S.; Chatterjee, J.: Network Changes in V-Belt Rubber Base during Simulated Service Testing (Note), 427
**Matlengiewicz, M.**
—; Turska, E.: Kinetic Studies on Copolycondensation Processes. VI. Influence of Copolycondensation Temperature on Tetrad Distribution of the PDT/FT Aromatic Copolyteres thalate by $^1$H-NMR Spectroscopy, 3587
**Matsumoto, A.** See Yamawaki, M., 1761
—; Miyagawa, M.; Yamawaki, M.; Oiwa, M.: Studies on the Diallyl Phthalate Prepolymers Capable of Initiating Polymerization at Elevated Temperatures. IV. Possibilities for Practical Application (Note), 2241
**Matsuzawa, S.** See Yamaura, K., 4009
**M'Bon, G.**
—; Roucoux, C.; Lablache-Combier, A.; Loucheux, C.: Photochemistry of Polymeric Systems. VI. Photocrosslinking of Basic Polymers and Copolymers: Dyeing, 651
**McCarthy, T. J.** See Gagnon, D. R., 4335
**McCormick, C. L.** See Neidlinger, H. H., 713
**McKay, G.**
—; Blair, H. S.; Gardner, J. R.: The Adsorption of Dyes onto Chitin in Fixed Bed Columns and Batch Adsorbers, 1499
**McLean, P. D.** See Daly, J., 1403
**Meijerink, N. L. J.** See Scholte, Th. G., 3763
**Meister, J. J.**
—; Patil, D. R.; Channell, H.: Properties and Applications of Lignin–Acrylamide Graft Copolymer, 3457
**Memory, J. D.** See Netravali, A. N., 311
**Mengoli, G.** See Musiani, M. M., 4433
**Merckaert, P.** See Borsus, J. M., 1857
**Messiha, N. N.** See Ikladious, N. E., 509
**Mestan, S. A.** See Grabovac, I., 4407; Tolan, F. C., 4415
**Mijangos, C.** See Martinez, G., 1735
**Mijovic, J.**
—; Kim, J.; Slaby, J.: Cure Kinetics of Epoxy Formulations of the Type Used in Advanced Composites, 1449
**Mikroyannidis, J. A.**
Substituted 1-[(Phosphinyl)Methyl]-2,4- and -2,6-Dinitrobenzenes, 1-[(Phosphinyl)Methyl]-2,4- and -2,6-Diaminobenzenes: New Starting Materials for Preparation of Fire-Resistant Polymers, 691
—; Kourtides, D. A.: Curing of Epoxy Resins with 1-[Di(2-Chloroethoxyphosphinyl)Methyl]-2,4- and -2,6-Diaminobenzene, 197
—; Kourtides, D. A.: Synthesis and Characterization of Phosphorus-Containing Polyamides and Copolyamides Based on 1-[(Dialkoxyphosphinyl)-Methyl]-2,4- and -2,6-Diaminobenzenes, 941
**Millan, J.** See Martinez, G., 1735
**Miller, R. W.**
—; Murayama, T.: Dynamic Mechanical Properties of Partially Oriented Polyester (POY) and Draw-Textured Polyester (PTY) Yarns, 933
**Min, K.**
—; White, J. L.; Fellers, J. F.: High Density Polyethylene/Polystyrene Blends: Phase Distribution Morphology, Rheological Measurements, Extrusion, and Melt Spinning Behavior, 2117
**Misra, A. K.**
—; Pandey, G. N.: Kinetics of Alkaline-Catalyzed Cardanol–Formaldehyde Reaction, 361
**Mitani, K.** See Ito, J., 75
**Mitra, B. C.** See Dwivedi, U. N., 4199
**Mitsui, M.** See Miyauchi, S., 251
**Mittal, K. L.** See Suryanarayana, D., 2039
**Mitui, H.** See Hayase, S., 269
**Miyagawa, M.** See Matsumoto, A., 2241
**Miyasaka, K.** See Danno, T., 3171; Kojima, Y., 533; Sumita, M., 1523
**Miyauchi, S.**
—; Fujino, N.: Polymerization of *N*-Vinylcarbazole in the Presence of Magnetic Ferric Oxide Particles (Note), 4461
—; Sorimachi, Y.; Mitsui, M.; Akihide, H.; Ohkita, K.: Electrical Properties of Carbon-Black Grafted with Polymers Using an Anionic Catalyst, 251
**Mizutani, Y.** See Ito, J., 75
**Mobasher, A.** See Anani, A., 1491
**Mohajer, Y.**
—; Bagrodia, S.; Wilkes, G. L.; Storey, R. F.; Kennedy, J. P.: New Polyisobutylene-Based Model Elastomeric Ionomers. VI. The Effect of Excess Neutralizing Agents on Solid-State Mechanical Properties, 1943
**Mohan, D.**
—; Radhakrishnan, G.; Rajadurai, S.; Nagabhushanam, T.; Joseph, K. T.: Studies on Graft Copolymerization of Acrylate Monomers onto Casein, 329
**Monaco, S. B.**
—; Davis, L. D.; Richardson, J. H.: Chemiluminescence of Polysiloxane Cushions: Correlation with Physical Properties (Note), 4439
**Montgomery, R. E.** See Weber, F. J., 3499
**Morimoto, K.** See Yosomiya, R., 671
**Morooka, T.**
—; Norimoto, M.; Yamada, T.; Shiraishi, N.: Dielectric Properties of Cellulose Acylates, 3981
**Morris, C. E. M.** See Grabovac, I., 4407; Tolan, F. C., 4415
**Moschetti, A.** See Guerra, G., 2271
**Motohashi, S.** See Saido, K., 3261
**Moustafa, A. B.**
—; Badran, A. S.; Shandy, S. M. M.: Emulsion Polymerization of Methyl Methacrylate in the Presence of Burnt Mazote Boiler Deposit, 3687
—; Sayyah, S. M.; Badran, A. S.; Hassanin, M. S.: Characterization of Some Poly(methyl Methacrylate) Prepared by Emulsion Polymerization in Presence of Egyptian Delta Titano Magnetite Ore (EDTMO), 3677
**Mrkvickova, L.**
—; Danhelka, J.; Pokorny, S.: Characterization of Commercial Polyvinylbutyral by Gel Permeation Chromatography, 803
**Mukai, J.** See Yokoyama, T., 1951
**Mukherjee, A. K.**
—; Goel, H. R.: Mechanical and Some Other properties of Acrylic-Monomer-Grafted Nylon 6 Fiber, 1327
**Munoz-Escalona, A.**
—; Hernandez, J. G.; Gallardo, J. A.: Catalytic Activity and Control of the Nascent Morphology of Polyethylenes Obtained with First and Second Generation of Ziegler–Natta Catalysts, 1187
**Murakami, S.** See Tabata, M., 3401
—; Tabata, M.; Sohma, J.: Polymerizations of

Ethylene and Propylene Initiated by Milled Metallic Oxides. II. Characterizations of the Mechanochemically Produced Polymers, 291
—; Tabata, M.; Sohma, J.; Hatano, M.: Mechanochemical Polymerization of Acetylene, 3445
**Murakami, T.** See Inagaki, N., 3595
**Muramoto, N.** See Ishihara, K., 211
**Murayama, T.** See Miller, R. W., 933
**Murff, S. R.**
—; Barlow, J. W.; Paul, D. R.: Thermal and Mechanical Behavior of Polycarbonate–Poly(ethylene Terephthalate) Blends, 3231
**Murthy, U. M. S.**
—; Srinivasan, S.; Sobhanadri, J.: Dielectric Relaxation in Poly(1,4-phenylene Terephthalamide), 1693
**Murti, D. K.** See Perovic, A., 4321
**Murty, V. M.**
—; De, S. K.: Short-Fiber-Reinforced Styrene–Butadiene Rubber Composites, 1355
**Musiani, M. M.**
—; Mengoli, G.; Furlanetto, F.: Improved Polyaniline Coatings by In Situ Electropolymerization (Note), 4433
**Myers, G. E.** See Hill, C. G., Jr., 2749

**Nachane, R. P.**
—; Iyer, K. R. K.; Patil, N. B.: Bulk Resilience of Fibers, 4055
**Nadkarni, V. M.** See Saini, D. R., 4123
**Nae, H. N.** See Chan, L. C., 3307
**Nagabhushanam, T.** See Mohan, D., 329
**Nagai, T.**
—; Kimizuka, Y.; Nakamura, E.; Seto, J.: Melt Viscosity of Acrylic Copolymers, 3479
**Nagano, Y.** See Tsubokawa, N., 985
**Nagasaka, A.** See Ashitaka, H., 2763
**Naito, I.**
—; Teshima, K.; Sato, N.; Sekito, H.; Kinoshita, A.: Photolysis of Poly(3-buten-2-one), Poly(4,4-dimethyl-1-penten-3-one), and Poly(3-methyl-3-buten-2-one) in the Presence of Oxygen, 4115
**Nakada, T.** See Oguchi, K., 4341
**Nakajima, N.** See Harrell, E. R., 995
**Nakajima, T.** See Oyama, H. T., 2143
**Nakamura, E.** See Nagai, T., 3479
**Nakano, J.** See Isogai, A., 2097, 3873
**Nakano, Y.**
—; Omichi, H.; MacKnight, W. J.: Dynamic Mechanical Properties of Methacrylic-Acid-Grafted Polyethylene Films, 1041
**Nakayama, H.** See Makoto, I., 373
**Nakayama, K.** See Kaito, A., 2347
**Nandi, U. S.** See Kumar, G. S., 3075
**Narasimhan, V.** See Boyd, D., 595
**Narebska, A.**
—; Lemanska, G.: Diffusion of Dyes in Polyester Fibers. IV. Anomalous Sorption of Disperse Dye Synthene Scarlet P3GL, 1483
—; Ostrowska-Gumkowska, B.; Krzystek, H.: Diffusion of Dyes in Polyester Fibers. III. Time Delay in Establishment of the Equilibrium Concentration of Dye at Fiber Surface, 1475
**Narkis, M.** See Kost, J., 3937
—; Vaxman, A.: Resistivity Behavior of Filled Electrically Conductive Crosslinked Polyethylene, 1639
**Nayak, P. L.** See Samal, S., 2007, 3283
**Neidlinger, H. H.**
—; Chen, G-S.; McCormick, C. L.: Water-Soluble Copolymers. VI. Dilute Solution Viscosity Studies of Random Copolymers of Acrylamide with Sulfonated Comonomers, 713
**Neogi, P.** See Kim, M., 731
**Netravali, A. N.**
—; Fornes, R. E.; Gilbert, R. D.; Memory, J. D.: Investigations of Water and High Energy Radiation Interactions in an Epoxy, 311
**Nguyen, T. Q.**
—; Kausch, H. H.: Protective Effect of the Phenyl Group In γ-Irradiated Compatible Blends of Poly(methyl Methacrylate) and Poly(styrene-Co-Acrylonitrile), 455
**Nguyen, T. T.** See Goh, S. H., 1463
**Nicolais, L.** See Apicella, A., 2083
**Nierzwicki, W.**
Microphase Separation in Urethane Elastomers as Seen through NMR Measurements, 1203
**Ning, Y.-P.**
—; Tang, M.-Y.; Jiang, C.-Y.; Mark, J. E.; Roth, W. C.: Particle Sizes of Reinforcing Silica Precipitated into Elastomeric Networks (Note), 3209
**Nishide, H.** See Maekawa, T., 3795
**Nishimura, M.** See Koyama, K., 2929
**Nishitani, N.** See Shimbo, M., 1709
**Nofal, E. E.** See Abu-Zeid, M. E., 2431, 2443
**Noguchi, T.** See Ashida, M., 661, 4107
**Nonaka, T.** See Egawa, H., 2045
**Nonogaki, S.** See Ueno, T., 223
**Norimoto, M.** See Morooka, T., 3981

**Ochi, M.**
—; Bell, J. P.: Rubber-Modified Epoxy Resins Containing High Functionality Acrylic Elastomers, 1381
**Ochoa, J. R.** See Katime, I., 4427
**O'Driscoll, K. F.** See Grinshpun, V., 1071
**Ogale, A. A.**
Depolymerization of Nylon 6: Some Kinetic Modeling Aspects, 3947
**Ogata, N.** See Azuma, C., 481; Oguchi, K., 4341
**Ogata, Y.** See Ashitaka, H., 2763
**Ogawa, N.**
—; Honmyo, K.; Harada, K.; Sugii, A.: Preparation of Spherical Polymer Beads of Maleic Anhydride–Styrene–Divinylbenzene and Metal Sorption of Its Derivatives, 2851
**Ogawa, T.** See Ide, S., 2561
**Ogiwara, Y.** See Arai, K., 3087, 4399
**Oguchi, K.**
—; Sanui, K.; Ogata, N.; Takahashi, Y.; Nakada, T.: Relationship between Electron Sensitivity and Chemical Structures of Polymers as EB Resists. III. Electron Sensitivity of Various Polyamides Using 3-Amino Perhydroazepine, 4341
**Ohkita, K.** See Miyauchi, S., 251
**Ohmichi, H.** See Maekawa, T., 3795
**Ohno, M.** See Tanioka, A., 583
**Ohtani, N.**
—; Kobayashi, A.: Microscopic Approach to Energy Dissipation during Viscoelastic Crack Propagation, 1537
**Ohtsuka, K.** See Lee, J. Y., 3813
**Ohtsuka, Y.**
—; Kawaguchi, H.; Yamamoto, T.: Immobilization of α-Amylase on Polymeric Carriers Having Different Structures, 3295
**Oikawa, E.**
—; Igarashi, Y.: Properties of Poly(4-vinylpyridine-Co-Methyl Vinyl Ketone) Membranes for Reverse Osmosis, 1723
**Oiwa, M.** See Matsumoto, A., 2241; Yamawaki, M., 1761
**Okamoto, J.** See Maekawa, T., 3795
**Okano, T.**
—; Sarko, A.: Mercerization of Cellulose. I. X-Ray Diffraction Evidence for Intermediate Structures, 4175
**Okita, K.** See Makoto, I., 373
**Olayemi, J. Y.** See Ebewele, R. O., 1415
**Omichi, H.** See Nakano, Y., 1041
**Osawa, Z.**
—; Kuroda, H.; Kobayashi, Y.: Luminescence Emission of Isotactic Polypropylene, 2843
**Ostrowska-Gumkowska, B.** See Narebska, A., 1475
**Otey, F. H.** See Shasha, B. S., 67

**Otomo, S.**
—; Kobayashi, Y.; Sako, T.; Yamamoto, Y.; Yamashita, S.: Studies of Tetrazoles as Rubber Chemicals. II. Reactivities and Antioxidation Activities of Reactive Antioxidants Based on Tetrazoles, 89
**Otsubo, Y.** See Watanabe, K., 57
—; Amari, T.; Watanabe, K.: Rheological Behavior of Epoxy Acrylate Prepolymer during UV Curing, 4071
—; Umeya, K.: Tubeless Syphon Flow of Viscoelastic Suspensions (Note), 1467
**Oudet, C.**
—; Bunsell, A. R.; Hagege, R.; Sotton, M.: Structural Changes in Polyester Fibers during Fatigue, 4363
**Oyama, H. T.**
—; Nakajima, T.: Effects of Complexation on the Water Vapor Sorption of Polymer Alloys, 2143

**Palka, G.** See Balas, A., 2261
**Panaras, R.** See Lecacheux, D., 1569
**Pandey, G. N.** See Misra, A. K., 361
**Papazian, H. A.**
Thermodynamics of Creep Rupture, 1547
**Paralikar, K. M.**
—; Bhatawdekar, S. P.: Hydrolysis of Cotton Fibers by Cellulase Enzyme, 2573
**Parker, J. A.** See Achar, B. N., 353
**Pasad, D. M.** See Beck, K. R., 3579; Vail, S. L., 3569
**Passerini, P.** See Apicella, A., 2083
**Patil, D. R.** See Meister, J. J., 3457
**Patil, N. B.** See Chidambareswaran, P. K., 837; Lokhande, H. T., 2421; Nachane, R. P., 4055
**Patton, C. J.**
—; Felder, R. M.; Koros, W. J.: Sorption and Transport of Benzene in Poly(ethylene Terephthalate), 1095
**Paul, D. R.** See Fernandes, A. C., 1971; Keitz, J. D., 3131; Murff, S. R., 3231; Preston, W. E., 845, 2251; Suarez, H., 3253; Woo, E. M., 3837
**Pawar, A. D.** See Chidambareswaran, P. K., 837
**Pearce, E. M.** See Kotzev, D. L., 4443; Lo, J., 35
**Pelzbauer, Z.**
—; Wagner, R.: A New Method of Evaluation of the Effect of Electron Beam and Developing Process on Positive Polymeric Resists, 1427
**Pennings, A. J.** See Leenslag, J. W., 2829
**Perego, G.**
—; Cesari, M.; Della Fortuna, G.: Structural Investigations of Segmented Block Copolymers. I. The Morphology of Poly(ether Esteramide)s Based on Poly(tetramethylene Oxide) "Soft" Segments, 1141
—; Cesari, M.; Vitali, R.: Structural Investigations of Segmented Block Copolymers. II. The Morphology of Poly(ether Ester)s Based on Poly(tetramethylene Oxide) "Soft" Segments: Comparison between Poly(ether Ester)s and Poly(ether Esteramide)s, 1157
**Perovic, A.**
—; Murti, D. K.: The Effect of Coatings on the Surface Precipitation of Oligomeric Crystals in Poly(ethylene Terephthalate) Films, 4321
**Peters, O. A.** See Ebewele, R. O., 1415
**Petrak, K.**
Interactions between Dyes and Polyelectrolytes—The Effect of Polymer–Polymer Interactions, 3991
**Petrak, K. L.**
The Effect of Phase Separation on the Structure and Permeability of Gelatin–Dextran Films, 555
**Petrovic, Z. S.**
—; Fajnik, D.: Preparation and Properties of Castor Oil-Based Polyurethanes, 1031
**Pilati, F.** See Gostoli, C., 2873
**Pinchuk, L.**
—; Eckstein, E. C.; Van De Mark, M. R.: Effects of Low Levels of Methacrylic Acid on the Swelling Behavior of Poly(2-hydroxyethyl Methacrylate), 1749
**Pineri, M.** See Escoubes, M., 1249
**Pisipati, R.** See Bagrodia, S., 3065
**Podkoscielny, W.** See Charmas, W., 4297
**Poinescu, Ig. C.** See Beldie, C., 13
—; Beldie, C.; Vlad, C.: Styrene–Divinylbenzene Coplymers: Influence of the Diluent on Network Porosity, 23
**Pokorny, S.** See Mrkvickova, L., 803
**Polissi, A.** See Bellobono, I. R., 3185
**Porter, R. S.** See Bassett, W. H., Jr., 2299; Kimura, M., 1629; Sun, T., 2307
**Pottick, L. A.**
—; Allen, S. R.; Farris, R. J.: Force-Temperature Behavior of Rigid Rod Polymeric Fibers, 3915
**Prausnitz, J. M.** See Majerus, M. S., 2453
**Prechner, R.** See Lecacheux, D., 1569
**Preston, W. E.**
—; Barlow, J. W.; Paul, D. R.: Effect of Crystallinity on Gas Permeation in Miscible Polycarbonate–Copolyester Blends, 845
—; Barlow, J. W.; Paul, D. R.: Effect of Crystallinity on Mechanical Properties of Miscible Polycarbonate–Copolyester Blends, 2251
**Priss, L. S.** See Lipatov, Y. S., 1919
**Provder, T.** See Malihi, F. B., 925
**Pugh, C.** See Hsieh, Y.-L., 3547
—; Hsieh, Y.-L.: Improvement of Hydrophilicity of Polypropylene by Liquid-Phase Mutual Irradiation of Acrylics, 3641
**Purwar, S. N.** See Gupta, A. K., 1079, 1595, 3513

**Quivoron, C.** See Lecacheux, D., 1569

**Radhakrishnan, G.** See George, A., 703; Mohan, D., 329
**Rajadurai, S.** See Mohan, D., 329
**Ram, A.**
—; Getz, S.: Reprocessing and Shear Modification of Polyethylene, 2501
**Ramayya, A. P.**
—; Chakraborty, S. K.; De, S. K.: Studies on Replacement of Silica by Carbon Black in the Tricomponent Dry Bonding System of Short Fiber–Rubber Composites (Note), 1911
**Ramesh, C.** See Gupta, V. B., 3115, 3727, 4203, 4219
**Ramirez, A. P.**
—; Solis, A. S.: Development of a New Composite Material from Waste Polymers, Natural Fiber, and Mineral Fillers, 2405
**Rao, K. N.** See Lokhande, H. T., 1843
**Rao, M. H.** See Lokhande, H. T., 1843
**Rao, R. M. V. G. K.** See Shukla, A., 1553
**Rashid, H. U.** See Ellis, B., 2021
**Rasoul, F. A.** See Anani, A., 1491
**Ratner, B. D.** See Cohn, D., 2645
**Ravindranath, K.**
—; Mashelkar, R. A.: Modeling of Poly(ethylene Terephthalate) Reactors. VIII. A Modified Continuous Transesterification Process (Note), 437
**Rebenfeld, L.** See Durning, C. J., 3197
**Ree, T.** See Sohn, J., 4237
**Renschler, C. L.** See Burns, F. B., 1133
Photodegradation Kinetics of Methyl Salicylate in Poly(methyl Methacrylate), 4161
—; Burns, F. B.: Monitoring of Degradation in Thermally Aged Nylon 6,6. I. UV-Visible Absorption Spectrophotometry, 1125
**Rials, T. G.** See Glasser, W. G., 1815
**Riccardi, C. C.**
—; Adabbo, H. E.; Williams, R. J. J.: Curing Reaction of Epoxy Resins with Diamines, 2481
**Richardson, J. H.** See Monaco, S. B., 4439
**Rigdahl, M.** See Westerlind, B., 175
—; De Ruvo, A.: The Effect of Cellulose–Solvent Interaction on the Mechanical Properties of Bonded Fibrous Structures, 187
**Riggs, D. M.** See Hutchenson, K. W., 3621
**Rodriguez, F.** See Joshi, M. G., 1345
An Analysis of CSTRs in Series for Solution Copolymerization, 3999
**Rogers, M. R.** See Cornell, J. H., 2581

**Roland, C. M.**
—; Bohm, G. G. A.: The Mechanism for Enhanced Autoadhesion in Azoester-Modified Polybutadienes, 3803
**Roth, W. C.** See Ning, Y.-P., 3209
**Roucoux, C.** See M'Bon, G., 651
**Rowland, S. P.**
—; Wade, C. P.; Bertoniere, N. R.: Pore Structure Analysis of Purified, Sodium Hydroxide-Treated and Liquid Ammonia-Treated Cotton Celluloses, 3349
**Roy-Chowdhury, P.**
—; Deuskar, V. D.: Effect of Solvent, Concentration, and Molecular Weight on the Rheological Properties of Polymer Solutions, 153
**Rudin, A.** See De Carvalho, L. H., 2921; Grinshpun, V., 1071
**Runt, J.**
—; Galgoci, E. C.: Polymer/Piezoelectric Ceramic Composites: Polystyrene and Poly(methyl Methacrylate) with PZT, 611
**Rutkowska, M.**
—; Eisenberg, A.: Ionomeric Blends. IV. Miscibility of Urethane Elastomers With Styrene–Styrene Sulfonic Acid Copolymer, 755

**Sabne, M. B.** See Ghatge, N. D., 1743
**Sacks, W.** See Khanna, Y. P., 3607
**Sadr-Bazaz, A.**
—; Granger, R.; Vergnaud, J. M.: Calculation of Profiles of Temperature and State of Cure Developed within the Rubber mass in Injection Molding Process, 955
**Sahoo, P. K.** See Samal, R. K., 319
**Sahu, G.** See Samal, S., 2007, 3283
**Saido, K.**
—; Motohashi, S.; Kuroki, T.; Ikemura, T.; Kirisawa, M.: Synthesis of Bis(2,4-diphenylbutyl) Phthalate and Its Application as a Plasticizer for Poly(vinyl Chloride) from Waste Polystyrene, 3261
**Saini, D. R.** See Shenoy, A. V., 1581
—; Shenoy, A. V.; Nadkarni, V. M.: Dynamic Mechanical Properties of Highly Loaded Ferrite-Filled Thermoplastic Elastomer, 4123
**St. Clair, T. L.** See Burks, H. D., 1027, 4037
**Saitoh, A.** See Inagaki, H., 3741
**Sakamoto, M.** See Kuramoto, N., 977
**Sakata, J.** See Yamamoto, M., 2981
**Sako, T.** See Otomo, S., 89
**Sakthivel, A.**
—; Abhiraman, A. S.: Bimodal Crystalline Orientation in Polypropylene: Mechanism of Formation, 4257
**Salee, G.** See Kimura, M., 1629
**Salwinski, J.** See Izydorczyk, J., 3663
**Samal, R. K.**
—; Satrusallya, S. C.; Sahoo, P. K.: Hexavalent-Chromium-Initiated Graft Copolymerization of Methyl Methacrylate onto Cellulose, 319
**Samal, S.**
—; Sahu, G.; Nayak, P. L.: Grafting Vinyl Monomers onto Silk Fibers: Graft Copolymerization of Methyl Methacrylate onto Silk Using Acetylacetonate Mn(III) Complex, 3283
—; Sahu, G.; Nayak, P. L.: Grafting Vinyl Monomers onto Wool Fibers: Graft Copolymerization of Methyl Methacrylate onto Wool Fibers Using Vanadyl Acetyl Acetonate Complex, 2007
**Sangita** See Varma, I. K., 2807
**Santos, W. M. S.** See Bassani, L. C., 2785
**Sanui, K.** See Azuma, C., 481; Oguchi, K., 4341
**Saraf, V. P.** See Glasser, W. G., 1815
—; Glasser, W. G.: Engineering Plastics from Lignin. III. Structure Property Relationships in Solution Cast Polyurethane Films, 1831
**Sarbolouki, M. N.**
Properties of Asymmetric Polyimide Ultrafiltration Membranes. I. Pore Size and Morphology Characterization, 743
**Sargent, J. P.**
—; Ashbee, K. H. G.: Very Slow Crack Growth during Osmosis in Epoxy and in Polyester Resins, 809
**Sarko, A.** See Okano, T., 4175
**Sarti, G. C.** See Gostoli, C., 2873
—; Apicella, A.; De Notaristefani, C.: Effect of the Thermal Histories on Case II Sorption Kinetics: Test of a Kinetic Theory for Swelling, 4145
**Sarto, V.** See Focher, B., 3329
**Satgurunathan, R.** See Hourston, D. J., 2969
**Sato, M.**
—; Kondo, H.; Yokoyama, M.: Preparation of Phosphorus-Containing Polymers. XXVIII. Synthesis and Flame Resistance of Phenoxaphosphine-Containing Copolyesters, 299
**Sato, N.** See Naito, I., 4115
**Satrusallya, S. C.** See Samal, R. K., 319
**Satyamurthi, S.** See Datye, K. V., 4395
**Sayyah, S. M.** See Moustafa, A. B., 3677
**Scaia, M. D.** See White, J. E., 891
**Schatz, M.** See Stefcova, P., 1929
**Scheuing, D. R.**
Size Exclusion Chromatography of Polyelectrolytes in Dimethylformamide, 2819
**Schoffeleers, H. M.** See Scholte, Th. G., 3763
**Scholte, Th. G.**
—; Meijerink, N. L. J.; Schoffeleers, H. M.; Brands, A. M. G.: Mark–Houwink Equation and GPC Calibration for Linear Short-Chain Branched Polyolefins, Including Polypropylene and Ethylene–Propylene Copolymers, 3763
**Schroll, A. L.**
—; MacLaury, M. R.: Use of Polymer-Bound Metals as Fire Retardants in Polyethylene–Silicone Blends, 3883
**Schulman, P.** See Fernandez-Prini, R., 341
**Schultz, G. W.** See De Paoli, M-A., 2493
**Schultz, J. M.** See Ceres, B. V., 4183
**Sefcik, M. D.** See Andrady, A. L., 3561
**Sefton, M. V.** See Gupta, J. P., 2383
**Sekiguchi, Y.**
—; Shafizadeh, F.: The Effect of Inorganic Additives on the Formation, Composition, and Combustion of Cellulosic Char, 1267
**Sekito, H.** See Naito, I., 4115
**Selli, E.** See Bellobono, I. R., 3185
**Seno, M.** See Igawa, M., 117, 709
**Seo, S. W.**
—; Jo, W. H.; Ha, W. S.: Compatibility of Nylon 6 and PMMA–Oligoamide Graft Copolymer, 567
**Seto, J.** See Nagai, T., 3479
**Setua, D. K.**
—; Dutta, B.: Short Silk Fiber-Reinforced Polychloroprene Rubber Composites, 3097
**Shaaban, A. F.** See Ikladious, N. E., 509
—; Hamed, A. A.; El-Karim, I. A. G.: Saturated and Unsaturated Polyesters Based on 1,3-(Dicarboxymethoxy)Benzene, 3855
**Shafizadeh, F.** See Sekiguchi, Y., 1267
**Shah, D. O.** See Jayakrishnan, A., 2937
**Shandy, S. M. M.** See Moustafa, A. B., 3687
**Sharma, S. N.** See Kumar, A., 1045
**Shasha, B. S.**
—; Trimnell, D.; Otey, F. H.: Starch–Borate Complexes for EPTC Encapsulation, 67
**Shenoy, A. V.** See Saini, D. R., 4123
—; Saini, D. R.: Upgrading the Melt Flow Index to Rheogram Approach in the Low Shear Rate Region, 1581
**Sherrington, D. C.** See Heffernan, J. G., 3013
**Shigemura, T.** See Kimura, K., 3161
**Shilov, V. V.** See Lipatov, Y. S., 1919
**Shimamura, T.** See Yano, T., 1287
**Shimbo, M.**
—; Nishitani, N.; Takahama, T.: Mechanical Properties of Acid-Cured Epoxide Resins with Different Network Structures, 1709
**Shimizu, J.** See Takaku, A., 1319
**Shinohara, I.** See Ishihara, K., 211

**Shirahama, H.**
—; Suzawa, T.: Surface Characterization of Styrene/2-Hydroxyethyl Methacrylate Copolymer Latex, 3651
**Shiraishi, H.** See Ueno, T., 223
**Shiraishi, N.** See Morooka, T., 3981
**Shirakawa, T.** See Toi, K., 2413
**Shukla, A.**
—; Rao, R. M. V. G. K.: Curing Studies on Modified Epoxy and Unsaturated Polyester Resins, 1553
**Shukla, S. R.** See Chidambareswaran, P. K., 837; Lokhande, H. T., 2421, 2989
**Sibilia, J. P.** See Khanna, Y. P., 3607
**Sideridis, E.** See Theocaris, P. S., 2997
**Simkovic, I.** See Antal, M., 637, 643
**Singh, R. P.** See Singh, Y. P., 1297, 1653
**Singh, Y. P.**
—; Singh, R. P.: Compatibility and Thermal Stability Studies on PVC/Chlororubber-20-Graft Polyblend-Styrene–Vinyl Acetate–Acrylonitrile Blends. II, 1653
—; Singh, R. P.: Thermal Stability of PVC/Chlororubber-20-Graft Polyblend–Styrene–Acrylonitrile Blends. I., 1297
**Sinha, S. B.** See Lokhande, H. T., 2421
**Siow, K. S.** See Goh, S. H., 99, 1463
**Sirmour, S. G.** See Lokhande, H. T., 2421
**Skinner, G. A.**
—; Haines, P. J.; Lever, T. J.: Thermal Degradation of Polyester Thermosets Prepared Using Dibromoneopentyl Glycol, 763
**Skryantz, J. S.** See Karayannis, N. M., 4421
**Skuches, G. S.**
—; Carleton, P. S.: Correlation of Urea Structure with Thermal Stability in Model Compounds, 3431
**Slaby, J.** See Mijovic, J., 1449
**Smith, R. E.** See Griffith, G. W., 407
—; Larsen, F. N.; Long, C. L.: Epoxy Resin Cure. I. Fluorine-19 NMR of Boron Trifluoride Monoethylamine and Fluoroboric Acid, 3697
—; Larsen, F.; Long, C. L.: Epoxy Resin Cure. II. FTIR Analysis, 3713
**Smith, T. G.** See Chiu, S-C., 1781, 1797
**Snider, D. A.** See White, J. E., 891
**Snuparek, J., Jr.**
—; Kleckova, Z.: Some Factors Affecting the Particle Growth in Semicontinuous Emulsion Polymerization of Acrylic Monomers, 1
**Sobhanadri, J.** See Murthy, U. M. S., 1693
**Sohma, J.** See Murakami, S., 291, 3445; Tabata, M., 3401
**Sohn, J.**
—; Ree, T.: Surface Studies of Polystyrene–Poly(methyl Methacrylate) Diblock Copolymers Precipitated by Different Precipitants, 4237
**Solimeno, S.** See Guerra, G., 2271
**Solis, A. S.** See Ramirez, A. P., 2405
**Sone, Y.** See Tsubokawa, N., 985
**Song, B. K.** See Kim, Y. J., 2359
**Soong, D. S.** See Majerus, M. S., 2453
**Sorimachi, Y.** See Miyauchi, S., 251
**Sotton, M.** See Oudet, C., 4363
**Srinivasan, B.**
—; Martin, G. C.: The Fabrication and Characterization of Polymer Optical Conductors, 2231
**Srinivasan, S.** See Murthy, U. M. S., 1693
**Srivastava, A. K.**
—; White, J. R.: Birefringence in an Epoxy Polymer During Stress-Relaxation and Recovery, 1241
—; White, J. R.: Curing Stresses in an Epoxy Polymer, 2155
**Stebleton, L.** See Jiang, C.-Y., 4411
**Stefcova, P.**
—; Schatz, M.: Physical and Chemical Interaction Mechanisms in Silicone Rubbers, 1929
**Stilbs, P.** See Brown, W., 823
**Storey, R. F.** See Bagrodia, S., 3065; Mohajer, Y., 1943
**Suarez, H.**
—; Barlow, J. W.; Paul, D. R.: Mechanical Properties of ABS/Polycarbonate Blends, 3253
**Sugama, T.**
—; Kukacka, L. E.; Carciello, N.; Warren, J. B.: Factors Affecting the Durability of Ca-Complexed Methylmethacrylate Copolymer Films Containing $CaO$–$SiO_2$–$H_2O$ Macromolecules, 2889
**Suganuma, K.**
—; Kuno, H.: The Influence of Molecular Weight of Acid Dyes on the Yield Stress of Dyed Nylon Monofilament, 3241
**Sugii, A.** See Ogawa, N., 2851
**Sumita, M.**
—; Tsukihi, H.; Miyasaka, K.; Ishikawa, K.: Dynamic Mechanical Properties of Polypropylene Composites Filled with Ultrafine Particles, 1523
**Sun, T.** See Bassett, W. H., Jr., 2299
—; Bassett, W. H., Jr.; Porter, R. S.: An NMR Study of the Dissociation of *N,N'*-(2-propyloximino)-4,4'-Methylenebis(phenylcarbamate) and Its Crosslinking of Polymers Containing Labile Hydrogens. II, 2307
**Sundardi, F.**
—; Kadariah, S.: Radiation Grafting of Methyl Methacrylate Monomer on Natural Rubber Latex, 1515
**Suryanarayana, D.**
—; Mittal, K. L.: Effect of pH of Silane Solution on the Adhesion of Polyimide to a Silica Substrate, 2039
**Suzawa, T.** See Shirahama, H., 3651
**Suzuki, S.** See Hayase, S., 269
**Suzuki, T.** See Yosomiya, R., 671
**Szmant, H. H.** See Hsu, S. L., 2467

**Tabata, M.** See Murakami, S., 291, 3445
—; Murakami, S.; Sohma, J.: Polymerization of Ethylene Induced by Fractured Metallic Oxides. III. Factors Affecting the Polymerization, 3401
**Tachibana, T.** See Igawa, M., 709
**Tahseen, L. A.** See Abu-Zeid, M. E., 2431, 2443
**Takahama, T.** See Shimbo, M., 1709
**Takahashi, Y.** See Oguchi, K., 4341
**Takaku, A.**
—; Shimizu, J.: Volume Contraction and Its Significance in Structural Formation During the Thermal Stabilization of Acrylic Fibers, 1319
**Takayanagi, M.** See Washizu, S., 3955
—; Goto, K.: Polymer Composite of Rigid and Flexible Molecules: Blend Systems of Poly(*p*-phenylene Terephthalamide) and ABS Resin, 2547
—; Goto, K.: Preparation and Properties of Graft and Block Copolymers of Poly(*p*-phenylene Terephthalamide) with Polybutadiene, 2057
—; Katayose, T.: Structure and Properties of *N*-Octadecylated Poly(*p*-Phenylene Terephthalamide), 141
**Takenaga, M.**
—; Hamada, R.; Yamagata, K.: Short-Time Annealing Behavior of Polytetrafluoroethylene Subjected to $\gamma$-Irradiation (Note), 2245
**Takezoe, H.** See Lee, J. Y., 795, 3813
**Takizawa, A.** See Tsujita, Y., 4279
**Tamura, H.** See Kawaguchi, T., 3369
**Tamura, K.** See Kawaguchi, T., 3359
**Tanaka, H.** See Azuma, C., 481; Lee, J. Y., 795
**Tanaka, M.** See Cha, Y. S., 2941; Igawa, M., 117, 709
**Tang, M.-Y.** See Mark, J. E., 4455; Ning, Y.-P., 3209
**Tanioka, A.**
—; Ishikawa, K.; Kakuta, A.; Kuramoto, M.; Ohno, M.: Mixed Gases Separation by Fine Porous Freeze-Dried Cellulose Acetate Membrane, 583
**Tasic, A.** See Bogdanovic, V., 2671
**Taverdet, J. L.**
—; Vergnaud, J. M.: Study of Transfer Process of Liquid into and Plasticizer out of Plasticized PVC by Using Short Tests, 3391
**Taylor, R. J.** See Buckley, C. P., 1985

**Teli, M. D.** See Lokhande, H. T., 1843
**Teshima, K.** See Naito, I., 4115
**Teshirogi, T.** See Kuramoto, N., 977
**Teyssie, Ph.** See Borsus, J. M., 1857
**Thakar, V. S.** See Lokhande, H. T., 2989
**Theocaris, P. S.**
—; Sideridis, E.: The Elastic Moduli of Particulate-Filled Polymers, 2997
**Thomas, I. M.**
—; Kiparissides, C.: Sensitivity Analysis of a Batch Polymerization Reactor, 2195
**Thornton, J. S.** See Weber, F. J., 3499
**Todorov, K.** See Troev, K., 577, 1701
**Toh, H. K.** See Lye, P. H., 2627
**Toi, K.**
—; Ito, T.; Shirakawa, T.; Ichimura, H.; Ikemoto, I.: Use of a Microcomputer with a Gas Permeation Apparatus, 2413
**Tolan, F. C.**
—; Mestan, S. A.; Morris, C. E. M.: Fiber Orientation Effects in Supported Adhesives (Note), 4415
**Torii, K.** See Igawa, M., 117
**Trimnell, D.** See Shasha, B. S., 67
**Troev, K.**
—; Todorov, K.; Borisov, G.: On the Use of the Dimethyl Terephthalate/Dimethyl Isophthalate Recrystallization Residue as a Raw Material in the Production of Solid Polyurethane Foams with Reduced Flammability, 577
—; Todorov, K.; Borisov, G.: Solid Foam–Polyurethanes with a Lowered Combustibility, 1701
**Tsubokawa, N.**
—; Nagano, Y.; Sone, Y.: Grafting of Poly-β-Alanine onto Carbon Black: The Hydrogen Transfer Polymerization of Acrylamide Catalyzed by *n*-Butyllithium in the Presence of Carbon Black, 985
**Tsuchida, E.** See Maekawa, T., 3795
**Tsujita, Y.**
—; Ikenouchi, M.; Inukai, M.; Takizawa, A.: Compatibility of Polypeptide Blends of Poly(■a-Butyl Glutamate)/Poly(■a-Benzyl Glutamate), 4279
**Tsukihi, H.** See Sumita, M., 1523
**Tsukruk, V. V.** See Lipatov, Y. S., 1919
**Tsunooka, M.** See Cha, Y. S., 2941
**Turi, E. A.** See Khanna, Y. P., 3607
**Turska, E.** See Matlengiewicz, M., 3587
**Tyrackova, V.** See Lukas, R., 901

**Ueno, H.** See Yano, T., 1287
**Ueno, T.**
—; Shiraishi, H.; Nonogaki, S.: Insolubilization Mechanism and Lithographic Characteristics of a Negative Electron Beam Resist Iodinated Polystyrene, 223
**Uhlmann, D. R.** See Jang, B. Z., 3409, 4377
**Umeya, K.** See Otsubo, Y., 1467
**Uryu, T.** See Biswas, M., 1183
**Uschold, R. E.**
Some Effects of Ionizing Radiation on Tetrafluoroethylene Copolymers, 1335

**Vail, S. L.** See Beck, K. R., 3579
—; Xiang, Z.; Beck, K. R.; Pasad, D. M.: Formaldehyde Release from a Model *N*-Methylol System, 3569
**Van De Mark, M. R.** See Pinchuk, L., 1749
**Van Den Berg, J. W. A.** See Kohn, F. E., 4265
**Vander Donckt, E.**
—; Kanicki, J.; Fedorko, P.: Electrical and Photovoltaic Properties of Pb/*trans*-(CH)$_x$ and Pb/[CH($AsF_5$)$_y$]$_x$ Schottky Barriers, 619
**Vanderhoff, J. W.** See Lowry, V., 3925
**Van De Ridder, G.** See Kohn, F. E., 4265
**Vander Sande, J. B.** See Jang, B. Z., 3409, 4377
**Varma, D. S.** See Varma, I. K., 2807
**Varma, I. K.**
—; Sangita; Varma, D. S.: Addition Polyimides. IV. Effect of Structure on Thermal Characteristics, 2807
**Vaxman, A.** See Narkis, M., 1639
**Vergnaud, J. M.** See Sadr-Bazaz, A., 955; Taverdet, J. L., 3391
**Vidal, A.** See Haidar, B., 4309
**Vitali, R.** See Perego, G., 1157
**Vlad, C.** See Poinescu, Ig. C., 23
**Vogel, R. F.** See Bozik, J. E., 3491
**Vrentas, J. S.**
—; Duda, J. L.; Hou, A.-C.: Anomalous Sorption in Poly(ethyl Methacrylate), 399

**Wada, M.** See Hayase, S., 269
**Wade, C. P.** See Rowland, S. P., 3349
**Wagner, R.** See Pelzbauer, Z., 1427
**Wang, D. X.** See Lyon, R. E., 2857
**Warner, S. B.**
Heat Generation Associated with Drawing of Poly(ethylene Terephthalate), 219
**Warren, J. B.** See Sugama, T., 2889
**Washizu, S.**
—; Kajiyama, T.; Takayanagi, M.: Membrane Structure and Permeation Properties of Poly(vinyl Chloride)/Liquid Crystal Composite Membrane, 3955
**Watanabe, K.** See Otsubo, Y., 4071
—; Amari, T.; Otsubo, Y.: Dynamic Viscoelastic Measurements of Photosensitive Polymers, 57
**Weber, F. J.**
—; Montgomery, R. E.; Thornton, J. S.; White, D. F.: The Effects of Thermooxidative Aging on the Fatigue Behavior of a Structural Adhesive, 3499
**Weigmann, H. D.** See Kamath, Y. K., 1011
**Weigmann, H.-D.** See Gozdz, A. S., 3965
**Weiss, R. A.**
—; Agarwal, P. K.; Lundberg, R. D.: Control of Ionic Interactions in Sulfonated Polystyrene Ionomers by the Use of Alkyl-Substituted Ammonium Counterions, 2719
**Westerlind, B.**
—; Rigdahl, M.; Hollmark, H.; De Ruvo, A.: Interfacial Properties of Regenerated Cellulose Fiber and Thermoplastic Systems, 175
**White, D. F.** See Weber, F. J., 3499
**White, J. E.**
—; Scaia, M. D.; Snider, D. A.: Reactions of Diaminoalkanes with Bismaleimides: Synthesis of Some Unusual Polyimides, 891
**White, J. L.** See Min, K., 2117
**White, J. R.** See Srivastava, A. K., 1241, 2155
**Wiles, D. M.** See Cooney, J. D., 911
**Wilkes, G. L.** See Abouzahr, S., 2695; Bagrodia, S., 3065; Mohajer, Y., 1943
**Williams, D. F.**
—; Chu, C. C.; Dwyer, J.: Effects of Enzymes and Gamma Irradiation on the Tensile Strength and Morphology of Poly(*p*-dioxanone) Fibers, 1865
**Williams, R. C.** See Ernes, D. A., 383
**Williams, R. J. J.** See Riccardi, C. C., 2481
**Woo, E. M.**
—; Barlow, J. W.; Paul, D. R.: Phase Behavior of Binary Mixtures of Oligomeric Styrene/Allyl Alcohol Copolymers and Aliphatic Polyesters, 3837
**Wu, L. C.-F.**
—; Glasser, W. G.: Engineering Plastics from Lignin. I. Synthesis of Hydroxypropyl Lignin, 1111

**Xiang, Z.** See Beck, K. R., 3579; Vail, S. L., 3569
**Xiao, H. X.** See Hsu, S. L., 2467
**Xie, S.**
—; MacKnight, W. J.; Karasz, F. E.: Carboxylation of Poly(2,6-dimethyl-1,4-Phenylene Oxide) and Thermal Properties of Blends with Atactic Polystyrene (Note), 2679

**Yamada, T.** See Morooka, T., 3981
**Yamagata, K.** See Takenaga, M., 2245
**Yamakita, H.** See Hayakawa, K., 4061
**Yamamoto, M.**
—; Sakata, J.; Hirai, M.: Plasma Polymerized Membranes and Gas Permeability. I, 2981
**Yamamoto, S.** See Ashitaka, H., 2763
**Yamamoto, T.** See Ohtsuka, Y., 3295
**Yamamoto, Y.** See Otomo, S., 89
**Yamamura, Y.** See Yano, T., 1287
**Yamashita, S.** See Otomo, S., 89
**Yamauchi, T.** See Giori, C., 237
**Yamaura, K.**
—; Matsuzawa, S.: Properties of Syndiotacticity-rich Poly(vinyl Alcohol) Thin Film in Water. I. Effect of the Load on the Extension of Untreated Thin Film in Water, 4009
**Yamawaki, M.** See Matsumoto, A., 2241
—; Matsumoto, A.; Oiwa, M.: Peculiar Thermal Behavior of Diallyl Oxalate Prepolymer, 1761
**Yamazaki, H.** See Inagaki, N., 1369
**Yang, H.-H.**
—; Han, C. D.: The Effect of Nucleating Agents on the Foam Extrusion Characteristics (Note), 4465
**Yano, T.**
—; Ueno, H.; Inoue, T.; Shimamura, T.; Yamamura, Y.: Polymerization of Propylene with $TiCl_3$–$AlEt_2Cl$–Trilauryltrithiophosphite Catalyst, 1287
**Yanyo, L. C.** See Hsich, H. S. Y., 413, 2331
**Yap, K. S.** See Goh, S. H., 99
**Yokoyama, M.** See Sato, M., 299
**Yokoyama, T.**
—; Kinjo, N.: Electric Conductivity of Silicone Elastomers Vulcanized by the Hydrosilation Reaction, 2665
—; Kinjo, N.; Mukai, J.: Effects of Catalyst on the Electrical Properties of Silicone Rubber, 1951
**Yoshimura, Y.**
Polymerization of Tung Oil by Reaction of Phenols with Tung Oil, 2735
Reactions of Phenols with Tung Oil, 1063
**Yosomiya, R.**
—; Morimoto, K.; Suzuki, T.: The Reaction of Glass Fiber with Diisocyanate and Its Application, 671
**Yuasa, S.** See Kimura, K., 3161

**Zachariades, A. E.**
The Preparation of Multiaxially Oriented Polyethylene Morphologies with High Mechanical Properties in Planar Directions, 867
**Zelenka, J.** See Kastanek, A., 447
**Zenitani, Y.** See Inagaki, H., 3741
**Zia, Y.** See Hourston, D. J., 629, 2951, 2963

# Subject Index to Volume 29

Notes and Errata are indicated by the letters N and E, respectively, following the page number.


ABS, blends of PC and, mechanical properties of, 3253
Absorbed water, effect of, on dynamic modulus, of short fiber–CR composites, 4107
Absorption bands, 3907
Absorption of dicumyl peroxide by extruded polyethylene, 2383
Absorption spectrometry, study of thermally aged nylon 6,6 degradation using, 1125
ABS resin, blends of poly(*p*-phenylene terephthalamide) and, 2547
Acetals as crosslinking agents for cotton, 1433
Acetals as crosslinking reagents for cotton, 1433
Acetanilide, 4-hydroxy-, product of 1,2-epoxy-3 phenoxypropane and as amine-cured epoxy resins, 1403
Acetylene, mechanochemical polymerization of, on γ-alumina and other material, 3445
Acid-cured epoxide resins, mechanical properties of, 1709
Acid dyes, molecular weight of, influence of, on yield stress of dyed nylon monofilament, 3241
Acrylamide, copolymers, with sulfonated comonomers, 713
—, grafting of, onto lignin, 3457
—, grafting of mixture of acrylic acid and, onto polyester fibers, synergism during, 1843
—, grafting of mixtures of styrene and, onto cellulose acetate, radiation-induced, 1559
—, hydrogen transfer polymerization of, in presence of carbon black, 985
2-Acrylamido-2-methylpropane sulfonate, sodium salt of, copolymers of acrylamide with, 713
Acrylated epoxy and urethane prepolymers, rheological properties of curing, 57
Acrylate–styrene copolymer-bonded networks of cellulose fibers, properties of, 175
Acrylic acid, copolymers of *n*-butyl acrylate and, epoxy resins containing, 1381
—, grafting of, onto PET, glow discharge-induced, effects of organic solvents on, 3547
—, grafting of, onto PP, radiation-induced solvent effect on, 3641
—, grafting of, to polyethylene, radiation-induced, 3795
—, grafting of mixture of acrylontrile or acrylamide and, onto polyester fibers, synergism during, 1843
Acrylic acid esters, copolymers of, with triphenyltin methacrylate, 509
Acrylic acid-grafted PP, electrokinetic properties of, 2989
Acrylic copolymers, melt viscosity of, 3479
Acrylic elastomers, high functionality, rubber-modified epoxy resins containing, 1381
Acrylic fibers, thermal stabilization of, volume contraction during, 1319
Acrylic-monomer-grafted nylon 6 fiber, properties of, 1327
Acrylic monomers, grafting of, onto cellulose, 4247
—, grafting of, onto gelatin, $K_2S_2O_8$ initiated, 703(N)
—, grafting of, onto nylon 6 fiber, 1327
—, grafting of, onto PP, radiation-induced, solvent effect on, 3641
—, semicontinuous emulsion polymerization of, 1
Acrylic polymers, IPNs based on, 2969
Acrylic terpolymer, PVC, 3421
Acrylic terpolymer–PVC blends, weather-resistant sealants based on, 3421
Acrylonitrile, chlororubber-20-graft polyblend–styrene–, PVC blends with, thermal stability of, 1297
—, copolymers containing, bifunctional cation exchangers from, 13
—, copolymers of, miscibility of MMA copolymers with, 99
—, grafting of mixture of acrylic acid and, onto polyester fibers, synergism during, 1843
—, graft polymerization of, 4449(N)
—, mixtures with styrene, impregnated in mortars, radiation polymerization of, 3027
—, phase-transfer-catalyzed polymerization of, 2937(N)
Activation energy, 3057
Acylates, of cellulose, dielectric properties of, 3981
Addition polyimides, structure–thermal characteristic relationship of, 2807
Addition polyimides prepared from bis(*m*-maleimidophenyl) methylphosphine oxide and diamines, 2807
Additives, in transparent glassy polymers, 2271
Adhesion, lap shear, of SAN–PC blends, 3131
—, of PU ionomers, to aluminum, 2467
Adhesion between filler and polymer in alumina-filled rigid polyurethane foams, enhancement of, 1857
Adhesive bonds, between glass or metal substrates and a PB–PU, durability of, 3147
—, in flexible PVC, effect of branching in dialkyl phthalate plasticizers on, 383
Adhesive joint, CTBN-modified, impact fatigue strength in, 373
Adhesives, wood, from mangrove bark, 1415
Adhesive sealant compositions comprising blends of acrylic terpolymer and PVC, 3421
Adsorption, of dyes, onto chitin, in fixed bed columns and batch adsorbers, 1499
—, of heavy metal ions, by macroreticular chelating resins, effect of porosity on, 2281
Adsorption columns, for dyes, 1499
Adsorption of water-soluble, nonionic polymers onto cellulosic fibers, 1675
Adsorption resins, selective, 2281
Ag–Hg alloy, novel method of preparing, on polyacrylamide films and their structure, 795
Ag–Hg alloy films, produced on polymer substrates, x-ray analysis of, 3813
Aging, thermooxidative, effect of, on fatigue behavior of a structural adhesive, 3499
Aging of Halar film, high-temperature, 3607
AIBN-initiated polymerization of methyl acrylate in presence of 2-mercaptobenzothiazole, 4199
$AlEt_2Cl$, catalyst containing trilauryltrithiophosphite and, polymerization of propylene using, 1287
Alfrey approximation of relaxation–time spectra, for heat-set PET, 4203
*n*-Alkanes, absorption of, on intact fibers, surface characterization of fibers by IGC and, 3965
Alkyl phenols, reactions of tung oil with, 1063
Alkyl-substituted ammonium counterions, control of ionic interactions in sulfonated PS ionomers by, 2719
Allyl, pendant, and monomer content in polydiallylphthalate, 407

Allyl alcohol, oligocopolymers of styrene with, binary mixtures of aliphatic polyesters with, phase behavior of, 3837
Alumina, fractured, ethylene polymerization induced by, 3401
—, fractured, polymerization of acetylene on, 3445
Aluminizing, of PVA, effect of, on permeability of $D_2$ and $^4He$ in, 261
Aluminum complex, catalyst containing silanol and, curing of epoxy resins using, 269
Aluminum organic compounds, cationic polymerization of isobutylene using, 1215
Amido group-containing polymers, as additives to UF resins, to reduce HCHO emission, 45
Amine-cured epoxy resins, additive for increasing the strength and modulus of, 1403
—, blends containing, hydrogen bonding in, 3381
Amino esters, modifying chlorinated natural rubber, 4091
Amino group-containing polymers, as additives to UF resins, to reduce HCHO emission, 45
3-Amino perhydroazepine, 4341
Amino polymers, prepared from 1-chloro-2,3-epoxy propane and amines, 1393
Amino responsive membranes, controlled release of organic substances using, 211
Ammonium counterions, alkyl-substituted, control of ionic interactions in sulfonated PS ionomers by, 2719
Ammonium peroxy disulfate, used in phase-transfer-catalyzed polymerization of acrylonitrile, 2937(N)
Amorphous films, of nylon 6, 3907
Amphiphilic polymer membranes, controlled release of organic substances using, 211
α-Amylase, immobilization of, on polymeric carriers, 3295
Anhydride cured epoxy resins, blends containing, hydrogen bonding in, 3381
Anhydride-substituted PS, cation exchange resins from sulfonated, 829
Anionic catalyst-initiated grafting, of MMA, onto carbon black, 251
Anionic composite RO membrane, interpolymer, rejection of phenolic derivatives in aqueous solution by, 2929
Annealing behavior of polytetrafluoroethylene subjected to γ-irradiation, 2245(N)
Annealing of polypropylene–poly(ethylene-co-propylene) blends, 75
Antioxidants, based on tetrazoles, for rubbers, 89
—, as photostabilizers, for butadiene rubber, 2493
Antipyrenes, phosphorus- and chlorine-containing, solid-foam PUs prepared using, flame retardant, 1701
Aqueous organic mobile phases, polar monomer grafted PS packings for use in, 3013
Architecture, molecular, of elastomers, modified Cole–Cole plot used in study of, 995
Argand diagram, for dynamic mechanical properties of ferrite-filled thermoplastic elastomers, 4123
Argon ion laser, crosslinking of photosensitive silicone polymers using UV from, 2231
Aromaticization index, study of volume contraction in acrylic fibers during heat stabilization using, 1319
Ascorbic acid-peroxydisulfate redox system, grafting of acrylate monomers onto casein initiated by, 329
$AsF_5$-doped *trans*-polyacetylene-containing sandwich cells, photovoltaic and electrical properties of, 619
ATR–IR, study of migration of plasticizer in vinyl resins using, 2247(N)
Autoadhesion, enhanced, in azoester-modified polybutadienes, 3803
Azoester-modified polybutadienes, enhanced autoadhesion in, 3803

Batch polymerization reactor, sensitivity analysis of, 2195
Batteries, Fe/Cr redox storage, anion exchange membranes for, 2317
BDSDA/APB polyimide, synthesis and characterization of, 4037
Benzene, sorption and transport of, in PET, 1095
Benzylation, of cellulose, 2097
$BF_3$–MEA, and amines, epoxy resins cured using, FTIR study of, 3713
—, epoxy resins cured using, $^{19}F$ NMR study of, 3697
Biaxially drawn UHMW-PE, microstructure of, 2347
Bimodal crystalline orientation in PP, mechanism of formation, 4257
Bimodal networks, filled, properties of, 4411(N)
Biodegradability, of photooxidized polyalkylenes, 2581
Biodegradation of gelatin-*g*-poly(ethyl acrylate) copolymers, 3075
Biomass materials, radiant flash pyrolysis of, 2163
Biomaterials, elastomeric, fatigue lifetime distributions for, prediction and measurement of, 3041
—, radiation-grafted polymers for, 2645
Birefringence in an epoxy polymer during stress-relaxation and recovery, 1241
Birefringence in heat-set PET fibers studied using optical microscopy, 3115
1,3-Bis(aminophenoxy)benzene, polyphenylene ether sulfideimide prepared from, properties of, 1027(N)
Bis(benzylterephthaloyl-*p*-oxybenzoyl) terminated polymeric glycols, liquid crystalline behavior of, 547
Bis(carboxybenzoyl-*p*-oxybenzoyl) terminated polymeric glycols, liquid crystalline behavior of, 547
Biscitraconimides, polymethylene, polymerization of, 1611
9,9-Biscresol fluorene isophthalate, polyarylate based on, photo-Fries rearrangement of, 35
4,4-Bis(3,4-dicarboxyphenoxy)diphenylsulfide dianhydride, polyphenylene ether sulfideimide prepared from, properties of, 1027(N)
9,9-Bis(3,5-dimethylhydroxyphenyl) fluorene isophthalate, polyarylate based on, photo-Fries rearrangement of, 35
Bis(2,4-diphenylbutyl) phthalate, synthesis of, from waste PS and use as a plasticizer for PVC, 3261
9,9-Bis(4-hydroxyphenyl)fluorene isophthalate, polyarylate based on, photo-Fries rearrangement of, 35
Bismaleimide resins, aromatic, cure states of, FTIR characterization of, 1771
Bismaleimides, polymethylene, polymerization of, 1611
—, reactions of diaminoalkanes with, 891
Bis(4,4′-maleimido diphenyl) methane, bismaleimide resins prepared from, 1771
Bisphenol-A, poly(urethane ester), elastomers based on, thermostability of, 681
Bisphenol A diglycidyl ether, curing of, with diamines, 2481
Bisphenol A epoxy resins, cured, water absorption isotherms for, 2021
Bisphenol-A–terephthaloyl–isophthaloyl copolyesters, blends of PET with, 1629
Bisphenol C-2 polycarbonate, iterative procedure to evaluate Mark–Houwink constants for, 2683
4,4′-Bis(phenylisocyanato)methane, PU ionomers based on, 2467
Bisphthalonitrile polymers, network structure in, 3339
Biuret, as additives to UF resins, to reduce HCHO emission, 45
Blending techniques, effect of, on tensile yield behavior of PP/SEBS blends, 3513
Blends, of acrylic terpolymer and PVC, 3421
—, of PC and ABS, mechanical properties of, 3253
—, PC–PET, thermal and mechanical behavior of, 3231
—, of PCs and copolyesters, effect of crystallinity on mechanical properties of, 2251

—, of poly(ϵ-caprolactone) and epoxy resin, hydrogen bonding in, 3381
—, of poly(ϵ-caprolactone) and SAN, compatibility of, 1781, 1797
—, of poly(ethylene terephthalate) and a polyarylate before and after transesterification, 1629
—, polymer, rheological behavior of, 2205
—, of PP and SEBS, tensile yield behavior of, effect of blending technique on, 3513
—, of PVC and acrylic terpolymer, 3421
—, of SEBS and PP, melt rheological properties of, 1079
Blend systems of poly(*p*-phenylene terephthalamide) and ABS resin, 2547
Block copolymers, segmented, structural properties of, 1141, 1157
Blocked crosslinkers, for epoxy resins, *N*-(2-hydroxyalkyl) amides as, 3213(N)
Blocked crosslinking agent, use of *N,N'*-(2-propyloximino)-4,4'-methylenebis(phenylcarbamate) as, 2299, 2307
Bonding systems, dry, for short silk fiber-reinforced polychloroprene rubber composites, 3097
Borate–starch complexes, for encapsulation of herbicides, 67
Branching in dialkyl phthalate plasticizers, effect of, on adhesive joints in flexible PVC, 383
Broadening, of chromatograms, of proteins and dextrans in SEC, 3533
Bulk resilience of fibers, as measure of elastic recovery, 4055
Butadiene, block copolymer with poly(*p*-phenylene terephthalamide), 2547
Butadiene–acrylonitrile copolymer, 4455(N)
Butadienediol, oligo-, polyurethaneureas based on, microphase state of, 1919
Butadiene rubber, antioxidants as photostabilizers for, 2493
Butadiene–styrene composites, fiber-reinforced, 1355
1-Butene, highly active Ziegler–Natta catalyst for homo- and copolymerization of, 279
1-Butene–ethylene copolymer, characterization of, by DSC and $^{13}C$-NMR, 3161
Butyl acrylate, copolymer of styrene and, determination of absolute molecular weight of, 925
—, copolymers of, with triphenyltin methacrylate, 509
—, grafting of, onto casein, redox system-initiated, 329
—, semicontinuous emulsion polymerization of EGDMA and, 1
*n*-Butylacrylate, copolymers of acrylic acid and, epoxy resins containing, 1381
Butylene, block copolymers containing, melt rheological properties of blends of PP and, 1079
*n*-Butyllithium, grafting of MMA onto carbon black using, 251
—, hydrogen transfer grafting of poly-β-alanine onto carbon black initiated by, 985
Butyllithium–TMEDA, anionic grafting of propylene sulfide on PS initiated by, 2517
Butyl methacrylate, copolymer of MMA with, miscibility of acrylonitrile copolymers with, 99
—, copolymers of, with triphenyltin methacrylate, 509
*n*-Butyl methacrylate, grafting of, onto nylon 6 fiber, 1327

$CaCO_3$, epoxy resins filled with, curing studies on, 1553
Cain and Larché theory, of vapor diffusion through polymer membranes, 731
Calorimetric studies, of ion clustering in ionomers, 1249
ϵ-Caprolactam, polymerization of, reactor for, 2177
Carbamoylethylated wood pulp, paper sheets prepared from, mechanical properties of, 3901
Carbon black, effect of on short fiber-reinforced styrene–butadiene composites using, 1355
—, grafting of poly-β-alanine onto, hydrogen transfer initiation of, 985
—, grafting of polymers onto, anionic catalyst-initiated, 251
—, as silica substitute, in tricomponent dry bonding fiber–rubber composites, 1911(N)
Carbon-black-filled polychloroprene, effect of degree of mixing on properties of, 499
Carbon fibers, prepared from 1,2-polybutadiene, 2763
Carbonyls, metal, Ziegler–Natta catalysts prepared from, PEs obtained with, 1187
Carboxylation of Poly(2,6-dimethyl-1,4-phenylene oxide), and thermal properties of blends with atactic polystyrene, 2679(N)
Carboxyl-containing polyesters and polyurethanes from dibenzyl L-tartrate, 977
Carboxyl groups, ion exchanger containing sulfo and, 13
Cardanol–formaldehyde reaction, alkaline-catalyzed, 361
Carriers, effects of, on morphology of nascent PE particles prepared using Ziegler–Natta catalysts, 1187
Case II sorption kinetics, of polystyrene–*n*-hexane systems, effect of thermal history on, 4145
Casein, as additives to UF resins, to reduce HCHO emission, 45
—, grafting of butyl acrylate onto, redox system-initiated, 329
$CaSiO_3$, epoxy resins filled with, curing studies on, 1553
Casting of thin epoxy films, a method for, 2677(N)
Castor oil, difunctional, thiol-modified, and room temperature curing elastomer from, 607
Castor oil-based polyurethanes, 1031
Catalyst, effects of, on the electrical properties, of silicone rubber, 1951
Catalytic degradation, of PS, 2561
Cation exchange resin, hydrolyzed maleic anhydride–styrene–DVB copolymer spherical beads as, 2851
—, from sulfonated poly-*N*-vinylcarbazole–formaldehyde copolymer, 1999
Cation exchange resins, from polystyrene, chemically modified, 829
Cation exchangers, containing sulfo and carboxyl groups, 13
Cationic polymerization, of isobutylene, by aluminum organic compounds, 1215
Cationization, of lignocellulose materials, 643
Cationization of lignocellulose materials, 637
Cellular cushions, polysiloxane, chemiluminescence of, 4439(N)
Cellulase, immobilization of, using porous polymer matrix, 2713
Cellulase enzyme, hydrolysis of cotton fibers by, 2573
Cellulose, carbamoylethylated, paper sheets prepared from, mechanical properties of, 3901
—, 2,3-dicarboxy, combined with metallic ions, 2289
—, grafting of acrylic and methacrylic monomers onto, effect of stirring on, 4247
—, grafting of MMA onto, Cr(VI)-initiated, 319
—, mercerization of, 4175
Cellulose acetate, grafting of styrene and acrylamide mixtures onto, radiation-induced, 1559
Cellulose acetate membranes, modified, for desalination, 1743
Cellulose acylates, dielectric properties of, 3981
Cellulose and graft copolymers, flocculation of metal-bearing waste waters using, 1903
Cellulose ethers, tri-*O*-substituted, nonaqueous cellulose solvent used in preparation of, 3873
Cellulose fibers, dry-formed networks of, mechanical properties of, 187
—, impregnated with poly(vinyl acetate), mechanical properties of, 187
—, polymer-bonded networks of, interfacial properties of, 175
Cellulose gels, self-diffusion, of small molecules in, 823
Celluloses, cotton, pore structure analysis of, 3349

Cellulose solvent, nonaqueous, used in preparation of tri-*O*-substituted cellulose ethers, 3873
Cellulose–solvent interaction, effect of, on the mechanical properties of bonded fibrous structures, 187
Cellulosic char, effect of inorganic additives on formation and properties of, 1267
Cellulosic fibers, adsorption of water-soluble nonionic polymers onto, 1675
Cellulosic materials, structure and enzymatic hydrolysis relationships of, 3329
Cement, MMA–TMPTMA copolymer containing, durability of, 2889
Chain dimension, unperturbed, determination of, using GPC & viscometry, 433(N)
Chain extension, of bis(*m*-maleimidophenyl) methylphosphine oxide, with diamines, addition polyimides prepared by, 2807
Char, cellulosic, effect of inorganic additives on formation and properties of, 1267
Characterization of BDSDA/APB polyimide, 4037
Charcoal, activated, polymerization of hexamethyldisiloxane on, by plasma, 2617
Chelating resins, macroreticular, containing dihydroxyphosphino and/or phosphono groups, 2045
—, macroreticular, influence of porosity on adsorption of heavy metal ions by, 2281
Chemical modification, of chlorinated natural rubber, 4081
Chemical modification of polystyrene, 829
Chemical structures, of polymers as EB resists, 4341
Chemiluminescence, of polysiloxane cushions, 4439(N)
Chemorheology, of thermosetting resins, 1879
Chemorheology of cure of tetraglycidyl diamino diphenyl methane–diamino diphenyl sulfone epoxy systems, 2083
Chitin, adsorption of dyes onto, 1499
Chitosan, as additives to UF resins, to reduce HCHO emission, 45
Chlorinated natural rubber, thermal stability, fractionation and chemical modification of, 4081
Chlorinated rubber, natural, chemical modifications of, 4091
Chlorine-containing antipyrenes, solid-foam PUs prepared using, flame retardant, 1701
Chlorine-resistant membrane for reverse osmosis, 3359, 3369
Chloroacetylated polybutadiene, photosensitivity of, 481
1-Chloro-2,3-epoxypropane, polymers from amines and, 1393
Chloromethylated crosslinked PS, grafting of propylene sulfide on, 2517
Chloroprene rubber, short fiber composites with, dynamic moduli of, 661
Chlororubber-20-graft polyblend–styrene–acrylontrile, PVC blends with, thermal stability of, 1297
Chromatogram broadening of proteins and dextrans in size exclusion chromatography, 3533
Chromatographic absorbents, cotton celluloses as, 3349
Chromatography, liquid, study of adhesive bonds in PVC using, 383
—, size exclusion, study of polyelectrolytes in DMF using, 2819
Chromium (VI) initiated graft copolymerization of methyl methacrylate onto cellulose, 319
Citra-itaconimides, polymethylene, polymerization of, 1611
Clustering, ion, in styrene-based ionomers, 1249
Coagulation, mechanical, in emulsion polymerizations, 3925
Coatings, effect of, on surface precipitation of oligomeric crystals in PET films, 4321
Coextruded films, mechanical and transport properties of, 2359
Cohesive energy density, of styrene–DVB copolymer, 23
Cohesive strength, of polymers, in polymer-bonded networks of cellulose fibers, 175
Cole–Cole distribution, 1693
Cole–Cole parameter, for dynamic mechanical properties of ferrite-filled thermoplastic elastomers, 4123
Cole–Cole plot, modified, based on viscoelastic properties for characterizing molecular architecture of elastomers, 995
Compatibilities, in acrylic polymer-based latex IPNs, 2969
Compatibility, of poly(ε-caprolactone) and SAN, blends, 1797
—, of poly(ε-caprolactone) and SAN blends, 1781
Compatibility and thermal stability studies on PVC/CR-20gp-SVAAN, 1653
Compatibility of nylon 6 and PMMA–oligoamide graft copolymer, 567
Compatibility of polystyrene and poly(methyl methacrylate), 1531
Complexation, effects of, on the water vapor sorption of polymer alloys, 2143
—, of Sm(III), by poly(acrylic acid) grafted polyethylene, 3795
Composite material, from waste polymers, natural fiber, and mineral fillers, 2405
Composites, concrete–polymer, comprising radiation–polymerized mixtures of styrene and acrylonitrile, 3027
—, epoxy formulations used in, cure kinetics of, 1449
—, fiber-reinforced, supported adhesives as, fiber orientation effects in, 4415(N)
—, isotactic PP, dynamic mechanical properties of, 1523
—, of mortar and radiation-polymerized impregnated styrene, fracture morphology of, 2069
—, particulate-filled polymer, elastic moduli of, 2997
—, polymer/piezoelectric ceramic, 611
—, of rigid and flexible polymer molecules, 2547
—, styrene–butadiene rubber, fiber-reinforced, 1355
Compression set, of polysiloxane cushions, 4439(N)
Concrete–polymer composites, 3027
Conductivity, electric, of silicone elastomers, 2665
Conductometric titration, study of poly(styrene-co-2-HEMA) latices using, 3651
Cone and plate rheometer, rheological behavior of polymer blends studies using, 2205
Conjugated polyene films prepared by dehydrochlorination of PVC films, 3171
Controlled release of organic substances, using polymer membrane with responsive function for amino compounds, 211
Copolycondensation processes, kinetic studies on, 3587
Copolyester, blends of PC with, gas permeation in, 845
Copolyesters phenoxaphosphine-containing, flame resistance of, 299
Copolymerization, of elemental sulfur, with styrene, 1225
—, of ethylene and 1-butene, highly active Ziegler–Natta catalyst for, 279
—, solution, CSTRs in series for, analysis of, 3999
Copper oxides, effects of, on pyrolysis of model PVC compounds, 3783
Cotton, *N*-methylolpyrrolidone-treated, reagent residues on, 3579
Cotton fibers, enzymatic hydrolysis of, 2573
—, swelling of, in aqueous ethylenediamine solutions, 837
—, swelling of, in EDA–morpholine mixtures, 2421
Counterions, ammonium, alkyl-substituted, control of ionic interactions in sulfonated PS ionomers by, 2719
Coupling agents, effects of, on rheological behavior of PP, 2599
CP-MAS $^{13}C$-NMR, study of enzymatic hydrolyzed cellulosic materials using, 3329
—, study of mechanochemical acetylene polymerization using, 3445
CR, composites of short-fiber nylon 6 or PET with, 4107

Crack growth, during osmosis, in epoxy and polyester resins, 809
Crack propagation, viscoelastic, energy dissipation during, microscopic approach to, 1537
Craze, 4377
Crazing test, of enameled wire in water, effect of electrical field on, 1309
Creep rupture, thermodynamics of, 1547
CR-20gp-SVAAN/PVC blends, compatibility and thermal studies on, 1653
Crosslinkers, blocked, for epoxy resins, *N*-(2-hydroxyalkyl) amides as, 3213(N)
Crosslinking, of iodinated PS, 223
—, photo-, of basic polymers and copolymers, 651
—, photo-, of polymers containing pyrazine-*N*-oxide groups, 125
Crosslinking agents, for cotton, acetals as, 1433
—, effect of low quantities of, on swelling behavior of PHEMA, 1749
Crystalline behavior, liquid, of poly(*p*-phenylene terephthalamide), *N*-octadecylated, 141
Crystalline morphology, 4377
Crystalline orientation, bimodal, in PP, mechanism of formation, 4257
Crystallinity, degree of, in cellulose, 4175
—, effect of, on gas permeation, in miscible polycarbonate–copolyester blends, 845
—, effect of, on mechanical properties of miscible PC/copolyester blends, 2251
—, in PET–polyarylate blends, 1629
—, polyester, effect of, on polyester–polyepichlorohydrin blends, 1971
Crystallinity index, x-ray, swelling of cotton fibers in EDA–morpholine mixtures studied using, 2421
Crystallinity in heat-set PET fibers studied using x-ray diffraction, 3115
Crystallization, during high-speed spinning of PET, 2111
—, of PET, nucleation of, 853
—, side-chain, of *N*-alkylated poly(*p*-phenylene terephthalamide), 141
—, solvent-induced, of PET films, dimensional changes during, 3197
Crystallization of PP in PP/SEBS blends and its correlation with tensile properties, 1595
CSTRs, in series, for solution copolymerization, analysis of, 3999
CTBN-modified adhesive-joint, impact fatigue strength in, 373
CTBN-modified epoxy-polyamide adhesive joints, impact fatigue strength in, 373
Cure, effect of, on $T_g$ predictions of epoxy polymers, 1471
—, of high $T_g$ epoxy systems, TTT diagrams for, 3307
—, state of, profile of, in rubber injection molding process, 955
Cured two-stage phenolics, improvement of, performance, 2395
Cure kinetics, of epoxy formulations, of the type used in advanced composites, 1449
Cure mechanisms, 4403(N)
Cure of formaldehyde–urea resins and model compounds, laser Raman spectral analysis of, 2749
Cure reaction, of silicone elastomers, 2331
Cure states, of bismaleimide resins, FTIR characterization of, 1771
Curing, of epoxy resins, with diamines, 2481
Curing stresses in an epoxy polymer, 2155
Curing studies, on modified epoxy and unsaturated polyester resins, 1553
CXA 3095, coextruded films of PE or nylon 6 and, mechanical and transport properties of, 2359
Cyanoethylated wood pulp, 4329
Cyanoethylation, 4329
Cyclic loading behavior, of carbon black-filled silicone rubber, 3937

Davies equation, prediction of IPN properties using, 2951
Degradation, bio-, of gelatin-*g*-poly(ethyl acrylate) copolymers, 3075
—, controlled, of polystyrene, 2561
—, of PE films, use of photoacoustic spectroscopy in study of, 1491
—, photochemical, of chemically modified wood, 105
—, photolytic, of PMMA films, 777
—, of poly(L-lactide) fibers, effect of secondary structure on, 2829
—, of PU, accelerated, monitored by photoacoustic spectroscopy, 2443
—, of PVC accelerated, monitored by photoacoustic spectroscopy, 2431
—, thermal, of polyester thermosets, 763
—, thermal, of PVC, influence of tacticity on, 1735
—, in thermally aged nylon 6,6, monitoring of, 1125
—, thermal oxidative, of flame-retardant polyesters, TGA study of, 911
Degradation of formaldehyde–urea resins and model compounds, laser Raman spectral analysis of, 2749
Degraded PMMA films, 777
Dehydrogenation, of syndiotactic 1,2-polybutadiene, carbon fibers prepared by, 2763
Delamination of an elastomer strip, spontaneous, 3269
Densitometer, as a detector, for gel permeation chromatography, 595
Density, study of castor oil-based polyurethanes using, 1031
—, study of volume contraction in acrylic fibers during heat stabilization using, 1319
Depolymerization, of nylon 6, 3947
—, of poly(fluoroalkyl methacrylate)s, thermogravimetric studies of, 4061
Deposition of polymers and surfactants on human hair, effect of, or surface wettability, 1011
Desalination, modified cellulose acetate membranes for, 1743
—, using sulfonated poly(phenylene oxide)–polysulfone thin film composite membranes, 4029
Deuterium, permeability of, in poly(vinyl alcohol), 261
Development, of electron beam-cured positive resists, 1427
Dextran chromatograms, in SEC, broadening of, 3533
Dextran–gelatin films, permeability of, effect of phase separation on, 555
—, phase separation in, effect of, on structure and permeability, 555
—, structure of, effect of phase separation on, 555
Dextrin, hydrolysis of, in presence of 12-tungstosilicic acid, 3087
—, hydrolysis of, in reversed micelle, 4399(N)
Dialkyl phthalate plasticizers, effect of branching in, on adhesive joints in flexible PVC, 383
Diallyl oxalate prepolymer, thermal behavior of, 1761
Diallylphthalate prepolymers capable of initiating polymerization, 2241(N)
Diaminobenzenes, [(phosphinyl)methyl], dialkoxy, *P*-containing polyamides based on, 941
Diaminodiphenylsulfone, epoxy resins cured using and/or $BF_3$–MEA or fluoroboric acid, 3713
—, epoxy resins from, interactions of $H_2O$ and radiation with, 311
—, epoxy systems based on, thermokinetics and chemorheology of cure of, 2083
4,4′-Diaminophenyl methane, tetraglycidyl, epoxy resins from, interactions of $H_2O$ and radiation with, 311
Diaminosulfone, epoxy formulations based on, cure kinetics of, 1449
Dibenzyl-L-tartrate, carboxyl-containing polyesters and polyurethanes prepared from, 977
Diblock copolymers, PS–PMMA, surface studies on, 4237
Dibromoneopentyl glycol, polyester thermosets from, thermal degradation of, 763
Dibutylphthalate, epoxy polymers modified by addition of, 515

2,3-Dicarboxy cellulose, combined with various metallic ions, 2289
Di(carboxyldichlorides), carboxyl-containing polyesters and polyurethanes prepared from, 977
1,3-(Dicarboxymethoxy)benzene, saturated and unsaturated polyesters based on, 3855
1-[Di(2-chloroethoxyphosphinyl)methyl]diaminobenzenes, curing of epoxy resins with, 197
2,8-Dichloroformyl-10-phenylphenoxaphosphine 10-oxide, copolyesters formed from, flame resistance of, 299
Dicumyl peroxide, absorption of, by extruded PE, effect of morphology on, 2383
4,4′-Dicyclohexylmethanediisocyanate, poly(urethane ester), elastomers based on, thermostability of, 681
Dielectric and ultrasonic absorption in some linear polyamides, 2635
Dielectric loss, study of amine-cured epoxy resins using, 1403
Dielectric measurements, study of bisphthalonitrile polymers using, 3339
Dielectric properties, of cellulose acylates, 3981
Dielectric relaxation, in poly(1,4-phenylene terephthalamide), 1693
Diethylamine–DMSO–$SO_2$, as solvent for benzylation of cellulose, 2097
Diffusion, of dyes, in polyester fibers, 1475, 1483
—, in poly(butylene terephthalate) solid-state polycondensation, 2873
—, self-, of small molecules, in cellulose gels using FT-pulsed field gradient NMR, 823
—, through semipermeable membranes, 3991
—, vapor, through polymer membranes, stress effects in, 731
—, of vapors in polymer membranes, 3663
—, of water, into epoxy matrices, Monte Carlo simulation of, 2453
Diffusion technique, solvent, study of additive concentration profiles using, 2271
Diffusivity, 3185
Dihydroxy phosphino-containing macroreticular chelating resins, 2045
Diisocyanate, reaction of glass fiber with, 671
Dimensional changes during solvent-induced crystallization of PET films, 3197
Dimethyl isophthalate/dimethyl terephthalate, recrystallization residue, low flammability PU foams produced from, 577
Dimethyl terephthalate/dimethyl isophthalate recrystallization residue, production of solid polyurethane foams, 577
Dinitrophenyl group, polymer membranes, having, controlled release of organic substances using, 211
2,4-Diphenyl-1-butene, obtained from waste polystyrene, 3261
4,4′-Diphenylmethanediisocyanate, poly(urethane ester), elastomers based on, thermostability of, 681
Dispersion curves, 3057
Dispersive x-ray, study of epoxy polymer morphology using, 515
Divinylbenzene–styrene, copolymers, chloromethylated, phosphorylated macroreticular chelating resins from, 2045
—, copolymers, phosphorylated macroreticular chelating resins from, 2045
Divinylbenzene–styrene copolymers, porosity of, effect of diluent on, 23
DMA, IPNs studied using, 2951, 2963, 2969
—, study of acrylic polymer-based IPNs using, 2969
—, study of amine-cured epoxy resins using, 1403
—, study of bisphthalonitrile polymers using, 3339
—, study of castor oil-based polyurethanes using, 1031
—, study of IPNs based on PUs and PVAc using, 2951
—, study of PU–polyacrylate-based IPNs using, 2963
DMA study, of 1-[di(2-chloroethoxyphosphinyl)-methyl]diaminobenzenes, cured epoxy resins, 197
DMSO–diethylamine–$SO_2$, as solvent for benzylation of cellulose, 2097
Double layer, electrical, of poly(styrene-co-2-HEMA) latices, 3651
Drawing, of PET, heat generation associated with, 219
Draw-textured polyester yarns, dynamic mechanical properties of, 933
Drilling mud additive, lignin–acrylamide copolymer as, 3457
Dry bonding system, tricomponent, for short fiber–rubber composites, 1911(N)
Dry-formed networks, of cellulose fibers, mechanical properties of, 187
Dry-spinning, of poly(L-lactide) fibers, effect of secondary structure on properties of, 2829
DSC, characterization of 1-butene–ethylene copolymer using, 3161
—, characterization of lignin derivatives using, 1815
—, study of biaxially drawn UHMW-PE microstructure using, 2347
—, study of bisphthalonitrile polymers using, 3339
—, study of castor oil-based polyurethanes using, 1031
—, study of *P*-containing polyamides based on 1-[(dialkoxyphosphinyl)methyl]diaminobenzenes using, 941
—, study of curing kinetics of vinyl ester resins using, 1879
—, study of epoxy polymer morphology using, 515
—, study of epoxy resins curing with diamines using, 2481
—, study of glow discharge-initiated grafted acrylic acid–PET using, 3547
—, study of interactions of $H_2O$ and radiation with epoxy resins using, 311
—, study of liquid crystalline behavior of mesogenic group-terminated polymeric glycols using, 547
—, study of phthalocyanine polymers using, 353
—, study of polymerization of polymethylene citraitaconimides using, 1611
—, study of poly(*p*-phenylene terephthalamide)–PB block and graft copolymers using, 2057
—, study of polyurethane films based on lignin and its derivatives using, 1831
—, study of rubber oxidation using, 2627
—, study of SAN–poly(ε-caprolactone) blends using, 1797
—, study of structure–property relationship in heat-set PET using, 3727
—, study of TGDDM–DDS curing systems using, 2083
—, study of weather-resistant sealants based on PVC and acrylic terpolymer using, 3421
—, $T_g$ of styrene–sulfur copolymers determined using, 1225
DSC study, of 1-[di(2-chloroethoxyphosphinyl)-methyl]diaminobenzenes, cured epoxy resins, 197
DSC study of SAN–poly(ε-caprolactone) blends using, 1781
DTA, study of PP crystallization in PP/SEBS blends using, 1595
DTG, study of thermal degradation of polyester themosets using, 763
Ductile–brittle transition in polymers, 3409
Durability, of Ca-complexed methyl methacrylate copolymer films containing $CaO–SiO_2–H_2O$ macromolecules, 2889
Durability of adhesive bonds between glass or metal substrates and a polybutadiene–polyurethane, 3147
Dyeability modifiers, for fibers, polymers from 1-chloro-2,3-epoxy propane and amines as, 1393
Dye absorption, on styrene and poly(styrene-co-2-HEMA) latices, 3651
Dyeing, of cotton celluloses, 3349
—, of photoreacted thiocyanato group-bearing polymers, 2941(N)
Dye polymeric, poly(*N*-vinylcarbazole-co-HCHO) as, 1999
Dyes, adsorption of, onto chitin, 1499

—, diffusion of, in polyester fibers, 1475, 1483
—, interactions between polyelectrolytes and, effect of polymer–polymer interactions on, 3991
—, polymeric, phosphorylated *N*-vinylcarbazole polymers and copolymers as, 3753
Dye uptake, of acrylic-monomer-grafted nylon 6 fiber, 1327
—, study of porous polymeric sorbents using, 1617
Dynamic mechanical analysis, of IPNs based on polyurethane–polyacrylate systems, 629
Dynamic mechanical properties, of ferrite-filled thermoplastic elastomers, 4123
—, of methacrylic-acid-grafted polyethylene films, 1041
—, of poly(*p*-phenylene terephthalamide), *N*-octadecylated, 141
—, of polypropylene composites, filled with ultrafine particles, 1523
Dynamic mechanical properties of partially oriented and draw-textured polyester yarns, 933
Dynamic mechanical testing, of SAN–poly(ε-caprolactone) blends, 1781
—, of SAN–poly(ε-caprolactone) blends using, 1797
Dynamic moduli for short fiber-CR composites, 661
Dynamic modulus, of short fiber–CR composites, effect of absorbed water on, 4107
Dynamic viscoelastic measurements, of photosensitive polymers, 57

EDXA, study of weather-resistant sealants based on PVC and acrylic terpolymer using, 3421
Elastic moduli of particulate-filled polymers, 2997
Elastic recovery, of fibers, bulk resilience as measure of, 4055
Elastomer, room temperature curing, from thiol-modified difunctional castor oil, 607
Elastomeric biomaterials, fatigue lifetime distributions for, prediction and measurement of, 3041
Elastomeric networks, reinforcing silica precipitated into, particle sizes of, 3209(N)
Elastomers, 4455(N)
—, filled, effect of degree of mixing on properties of, 499
—, molecular architecture of, modified Cole–Cole plot used in study of, 995
—, polyurethane thermoplastic, thermostability of, 681
—, polyurethane–urea, as working substances in rubber heat engines, 2857
—, silicone, cure reactions of, 2331
—, silicone, vulcanization of, by hydrosilation reaction, 2665
—, thermoplastic, ferrite-filled, dynamic mechanical properties for, 4123
—, urethane, cast, prepared from poly(ε-caprolactone)s, 2261
Elastomers filled and unfilled, hybrid model for mechanical spectra of, 413
Electrical and photovoltaic properties of Schottky barriers, 619
Electrical breakdown, in isotactic polypropylene, 4183
Electrical field, effect of, on crazing test of enameled wire in water, 1309
Electrically conductive PE, resistivity behavior of, 1639
Electrical properties, of carbon-black grafted, with polymers using an anionic catalyst, 251
—, of silicone rubber, 1951
Electric conductivity of silicone elastomers vulcanized by the hydrosilation reaction, 2665
Electrokinetic properties of acrylic acid- and methacrylic acid-grafted polypropylene, 2989
Electron beam curing, of positive resists, 1427
Electron beam resist, negative iodinated polystyrene, 223
Electron beam resists, 4341
Electron microscopy, study of biaxially drawn UHMW-PE microstructure using, 2347
—, study of IPNs based on PUs and PVAc using, 2951
—, study of poly(styrene-co-2-HEMA) latices using, 3651
Electron radiation, effect of, on graphite-reinforced polysulfone and epoxy resins, 237
Electron sensitivity, of polymers as EB resists, 4341
Electroosmosis, as factor in crazing of enameled wire, 1309
Electropolymerization, *in situ*, 4433(N)
Elemental analysis, of glow discharge polymerization using, 1369
—, of phosphorylated *N*-vinylcarbazole polymers and copolymers, 3753
—, study of volume contraction in acrylic fibers during heat stabilization using, 1319
Elongational viscosity, of PP, effects of coupling agents on, 2599
Elution, of solutes, water-soluble, from cotton cellulose packed columns, 3349
Emulsion copolymers of butyl acrylate and styrene, determination of absolute molecular weight of, 925
Emulsion polymerization, of methyl methacrylate, in presence of burnt mazote boiler deposit, 3687
—, of methyl methacrylate, in presence of Egyptian delta titano magnetite ore, 3677
—, semicontinuous, of acrylic monomers, 1
Emulsion polymerizations, mechanical coagulation in, 3925
Enameled wire, crazing test of, effect of electrical field on, 1309
Encapsulation, of herbicides, starch–borate complexes for, 67
Energy dissipation, during viscoelastic crack propagation, microscopic approach to, 1537
Engineering plastics from lignin, 1111, 1815, 1831
Enzymatic hydrolysis, of cotton fibers, 2573
Enzymes, effect of, on poly(*p*-dioxanone) fibers, 1865
—, immobilization of, on polymeric carriers, 3295
—, immobilization of, using porous polymer matrix, 2713
Epichlorohydrin, miscibility of aliphatic polyester with, 1971
Epoxidation of natural rubber latices, 1661
Epoxy, systems, high $T_g$, cure and thermal degradation of, TTT diagrams for, 3307
Epoxy acrylate prepolymer, rheological behavior of, during UV curing, 4071
Epoxy acrylate prepolymers, rheological properties of curing, 57
Epoxy composites, iron-filled, elastic moduli of, 2997
Epoxy films, thin, a method for casting, 2677(N)
Epoxy matrices, water diffusion into, Monte Carlo simulation of, 2453
1,2-Epoxy-3-phenoxypropane, product of 4-hydroxyacetanilide and as amine-cured epoxy resins, 1403
Epoxy-polyamide adhesive joints, impact fatigue strength in, 373
Epoxy polymer, modification of, by plasticizing, 515
Epoxy polymers, birefringence in, 1241
—, curing stresses in, 2155
—, stress-relaxation and recovery of, birefringence during, 1241
—, $T_g$ of, prediction of, effect of test frequency and cure on, 1471
Epoxy resin, blends with poly(ε-caprolactone), hydrogen bonding in, 3381
—, liquid, elastomers from thiol-modified difunctional castor oil, 607
Epoxy resin cure, using amines, FTIR study of, 3713
—, using $BF_3$–MEA, $^{19}F$ NMR study of, 3697
Epoxy resins, acid-cured, properties of, 1709
—, amine-cured, additives for increasing strength and modulus of, 1403
—, blocked crosslinkers for, *N*-(2-hydroxyalkyl) amides as, 3213(N)
—, curing of, with aluminum complex/silanol catalyst, 269
—, curing of, with 1-[di(2-chloroethoxyphosphinyl)-methyl]-2,4- and -2,6-diaminobenzene, 197

—, effects of radiation on, 311
—, filled, curing studies on, 1553
—, graphite-reinforced, effect of UV and electron radiations on, 237
—, interactions of water with, 311
—, modified, morphology of, 515
—, osmosis in, crack growth during, 809
—, rubber-modified, containing high functionality acrylic elastomers, 1381
ESCA, study of glow discharge polymerization using, 1369
—, study of glow discharge-polymerized silicon polymers using, 3595
—, study of oxidized wood surfaces using, 2777
—, study of polymerization of hexamethyldisiloxane by plasma, on activated charcoal, 2617
Ester bond-containing epoxy resins, acid-cured, properties of, 1709
Ether bond-containing epoxy resins, acid-cured, properties of, 1709
Ethyl acrylate, copolymers of, with triphenyltin methacrylate, 509
—, grafting of, onto gelatin, $K_2S_2O_8$ initiated, 703(N)
—, grafting of, onto gelatin, $S_2O_8^{2-}$ initiated, 3075
—, semicontinuous emulsion polymerization of EGDMA and, 1
Ethylene, block copolymers containing, melt rheological properties of blends of PP and, 1079
—, copolymer with methyl acrylate, coextruded films of PE or nylon 6 and, mechanical and transport properties of, 2359
—, copolymer with propylene, blends of PP with, annealing of, 75
—, highly active Ziegler–Natta catalyst for homo- and copolymerization of, 279
—, polymerization, induced by fractured metallic oxides, 3401
—, polymerization of, initiated by milled metal oxides, 291
—, polymerization of, with Ziegler–Natta catalysts, kinetics of, 1171
Ethylene-1-butene copolymer, characterization of, by DSC and $^{13}C$-NMR spectroscopy, 3161
Ethylene carbonate, phthalic anhydride reaction with, kinetics of, 4287
Ethylene glycol dimethacrylate, semicontinuous emulsion polymerization, with ethyl or butyl acrylate, 1
Ethylene polymerization, Ziegler–Natta catalysts for, metallophosphate supports for, 3491
Ethylene–propylene copolymer, molecular architecture of, modified Cole–Cole plot used in study of, 995
—, short-chain branched, GPC calibration for, 3763
—, short-chain branched, Mark–Houwink equation for, 3763
Ethylene–vinyl acetate copolymers, study of, using GPC high-temperature coupled with continuous viscometer, 1569
Ethyl methacrylate, copolymer of MMA with, miscibility of acrylonitrile copolymers with, 99
—, grafting of, onto nylon 6 fiber, 1327
—, grafting of mixtures of HEMA and, onto LDPE films, 2645
Ethyltrimethylsilane, glow discharge polymerization of, 1369
Evaluation of the effect of electron beam and developing process on positive polymeric resists, 1427
Evaporation of plasticizers, 3185
Exchange resins, cation from polystyrene, chemically modified, 829
Extractants, vinyl polymers prepared in the presence of, morphology of, 3825
Extraction, solvent, study of bisphthalonitrile polymers using, 3339
Extrusion properties, of HDPE/PS blends using, 2117

Fatigue behavior, of structural adhesive, effect of thermooxidative aging on, 3499
Fatigue failure, 4363
Fatigue lifetime distributions for elastomeric biomaterials, prediction and measurement of, 3041
Fe/Cr redox storage batteries, anion exchange membranes for, 2317
Ferrite-filled thermoplastic elastomers, dynamic mechanical properties for, 4123
Ferrite powder, silicone rubbers filled with, interaction mechanisms in, 1929
Fiber, rayon, composites of rubber and, carbon black as silica substitute in, 1911(N)
Fiber orientation effects, in supported adhesives, 4415(N)
Fiber-reinforced styrene–butadiene rubber composites, 1355
Fibers, bulk resilience of, as measure of elastic recovery, 4055
—, dyeability modifiers for, polymers from 1-chloro-2,3-epoxy propane and amines as, 1393
—, henequen, composite from waste polymers, mineral fillers and, 2405
—, melt spinning of, radial temperature differences in, 3621
—, natural, composite from waste polymers, mineral fillers and, 2405
—, polymeric, rigid rod, force–temperature behavior of, 3915
—, rigidity of, effect of hollow core on, 2537
Filled and unfilled elastomers, hybrid model for mechanical spectra of, 413
Filled elastomers, effect of degree of mixing on properties of, 499
Filled silicone elastomers, cure reaction of, 2331
Filler–polymer interactions, in alumina-filled PU foams, enhancement of, 1857
Fillers, mineral, composite from waste polymers, natural fibers and, 2405
Film adhesives, 4407(N)
Films, coextruded, mechanical and transport properties of, 2359
Fire-resistant polymers from substituted dinitrobenzenes and diaminobenzenes, 691
Fire retardants, in PE–silicone blends, polymer-bound metals as, 3883
Flame resistance, of *P*-containing polyamides, 941
—, of 1-[di(2-chloroethoxyphosphinyl)methyl]-diaminobenzenes cured epoxy resins, 197
Flame resistance of phenoxaphosphine-containing copolyesters, 299
Flame resistant polyurethanes, solid foam, 1701
Flame-retardant polyesters, degradation and TGA of, 911
Flammability, reduced, of PU foams prepared from recrystallization residue of dimethyl esters of mixed isomeric phthalic acids, 577
Flash pyrolysis, radiant, of biomass using xenon flashtube, 2163
Flocculation of metal-bearing waste waters using cellulose and its graft copolymers, 1903
Fluorene-based polyarylates, photo-Fries rearrangement of, 35
Fluorescence emission, of isotactic polypropylene, 2843
Fluorinated polymers, grafting of vinyl monomers onto, 1335
Fluoroboric acid, epoxy resins cured using amine and, 3713
—, presence of, in $BF_3$–MEA-cured epoxy resins, detected by $^{19}F$-NMR, 3697
Fluorocarbon polymer membrane, ion permeation through, selective, 117
Foam extrusion characteristics, 4465(N)
Foam polyurethanes, solid, with a lowered combustibility, 1701
Foams, polyurethane, having reduced flammability, 577
Force–temperature behavior of rigid rod polymeric fibers, 3915
Formaldehyde, condensates of *m*-phenylenediamine and melamine with, porous sorbents based on, 1617

—, copolymer with *N*-vinylcarbazole, sulfonated, cation exchange resin from, 1999
—, emission of, from urea–formaldehyde resins, 45
Formaldehyde–cardanol reaction, alkaline-catalyzed, 361
Formaldehyde release from a model *N*-methylol system, 3569
Formaldehyde–urea resins, of low formaldehyde emission, 45
Formaldehyde–urea resins and model compounds, laser Raman spectral analysis of, 2749
Formalin, reaction of *N*-vinylcarbazole, crosslinked polymer from, 1183
Four-bulb shear dilution capillary viscometer, 713
Fractionation, of chlorinated natural rubber, 4081
Fracture energy, of polyphenylene ether sulfideimide, effect of molecular weight on, 1027(N)
Fracture morphology, of radiation-polymerized styrene-impregnated mortar, 2069
Freeze-dried cellulose acetate membrane, gas separation using, 583
Freeze–thaw cycling, effect of, 4407(N)
Frequency, effects of test, and cure on glass transition temperature predictions on some epoxy polymers, 1471
Fries rearrangement, photo-, of fluorene-based polyarylates, 35
FTIR, characterization of lignin derivatives using, 1815
—, study of epoxy resins cured using amines and/or $BF_3$–MEA, 3713
—, study of pendant allyl and monomer content in polydiallylphthalate using, 407
FTIR characterization of aromatic bismaleimide resin cure states, 1771
FTIR studies, of structural changes during deformation, in heat-set PET, 4219
FTIR study, of 1-[di(2-chloroethoxyphosphinyl)-methyl]diaminobenzenes, cured epoxy resins, 197
FTIR study of effect of thermooxidative aging on fatigue behavior of structural adhesives, 3499
FTNMR, study of self-diffusion of small molecules in cellulose gels using, 823
Functionality distribution, in hydroxyl-terminated polybutadienes, 3741
Furfural, reaction of *N*-vinylcarbazole, crosslinked polymer from, 1183

Gas chromatography, pyrolysis–study of thermally aged nylon 6,6 degradation using, 1133
Gas permeability, of composite membrane, prepared by plasma polymerization, 2981
Gas permeation, in PC-copolyester blends, effects of crystallinity on, 845
—, through proton-irradiated PET thin films, 2785
Gas permeation apparatus, use of microcomputer with, 2413
Gas separation, by fine porous freeze-dried cellulose acetate membrane, 583
GC, characterization of PE using, 3401
—, study of polymer-grafted carbon blacks using, 251
GC–MS, characterization of PE using, 3401
—, oxidation of PP studied using, 465
—, study of substituted [(phosphinyl)methyl]-diamino- and dinitro- benzenes using, 691
GC/MS studies, of irradiated graphite-reinforced polysulfone and epoxy resins, 237
GC studies, of irradiated graphite-reinforced polysulfone and epoxy resins, 237
Gelatin, effect of, on methyl orange–poly(1-vinylimidazole) interaction, 3991
—, grafting of ethyl acrylate onto, $K_2S_2O_8$ initiated, 703(N)
—, grafting of ethyl acrylate onto, $S_2O_8^{2-}$ initiated, 3075
Gelatin–dextran films, permeability of, effect of phase separation on, 555
—, phase separation in, effect of, on structure and permeability, 555
—, structure of, effect of phase separation on, 555
Gelatin-*g*-poly(ethyl acrylate) copolymers, biodegradation of, 3075
Gel-hardness number, as quality control parameter, for cured resins, 1553
Gelling, premature, in RIM process, effect of processing conditions on, 1959
Gel permeation chromatography, 3863
Gels, cellulose, self-diffusion, of small molecules in, 823
Glass fiber, reaction of, with diisocyanate and its application, 671
—, short styrene–butadiene composites reinforced by, 1355
Glass fiber reinforcement, epoxy polymers modified by addition of, 515
Glass powder, epoxy resins filled with, curing studies on, 1553
Glass transition temperature, in melt-mixed blends of PC and SAN copolymers, 3131
Glassy polymers, transparent, additives in, 2271
Glow discharge, polymerization of hexamethyldisiloxane on activated charcoal by, 2617
Glow discharge-initiated grafting of acrylic acid onto PET, effects of organic solvents on, 3547
Glow discharge polymerization, 1369
Glow discharge polymerizations of tetramethoxysilane, tetramethylsilane/oxygen mixture, hexamethyldisiloxane, 3595
Glycols, polymeric, mesogenic group-terminated, liquid crystalline behavior of, 547
Gordon–Taylor equation, 1781
GPC, chain dimension, unperturbed, determination of, using viscometry and, 433(N)
—, characterization of lignin derivatives using, 1815
—, characterization of polyvinylbutyral using, 803
—, copolymerization of S and styrene studied using, 1225
—, densitometer as detector for, 595
—, high-speed, coupling of, with continuous viscometry, 1569
—, high-temperature coupling of continuous viscometer with, study of EVA copolymers using, 1569
—, hydroxyl-terminated polybutadienes studied using, 3741
—, inverse, characterization of structural differences in photochemically and chemically prepared networks by, 4309
—, iterative procedure to evaluate Mark–Houwink constants for bisphenol C-2 polycarbonate using, 2683
—, laser light scattering and, molecular weight of styrene–butylacrylate determined using, 925
—, PS packings for, grafted with polar monomers, 3013
—, study of γ-irradiated, PMMA–poly(styrene-co-acrylonitrile) using, 455
—, study of pendant allyl and monomer content in polydiallylphthalate using, 407
—, study of polymers prepared using milled metallic oxide initiators, 291
—, study of PS–PMMA compatibility using, 1531
—, study of suspension PVC morphology using, 901
GPC calibration, for linear short-chain, branched polyolefins, 3763
Graft copolymers, of water-soluble monomers and cellulose, flocculation of metal-bearing waste waters using, 1903
Grafted semi-1-interpenetrating polymer networks, 629
Grafting, of acrylamide, onto lignin, 3457
—, of acrylamide and styrene mixtures, onto cellulose acetate, radiation-induced, 1559
—, of acrylate monomers, onto casein, 329
—, of acrylic acid, to PET, glow discharge-induced, effects of organic solvents on, 3547
—, of acrylic acid, to polyethylene, radiation-induced, 3795
—, of acrylic and methacrylic monomers, onto cellulose by xanthate process, 4247

—, of acrylic monomers, onto nylon 6 fiber, 1327
—, of EMA–HEMA mixtures, on LDPE films, radiation-induced, 2645
—, of ethyl acrylate, onto gelatin, 703(N)
—, of ethyl acrylate onto gelatin, $S_2O_8^{2-}$ initiated, 3075
—, of methacrylic acid onto PE films, γ-irradiation-induced, 1041
—, of methyl methacrylate, in aqueous slurries of wood pulp, 2921
—, of methyl methacrylate, onto wool fibers, using vanadyl acetyl acetonate complex, 2007
—, of MMA, onto carbon-black, anionic catalyst-initiated, 251
—, of MMA, onto natural rubber, radiation-induced, 1515
—, of MMA onto cellulose, Cr(VI)-initiated, 319
—, of nylon 3, onto carbon black, hydrogen transfer intiation of, 985
—, photo-, of hydrophilic vinyl monomers, onto diethyldithiocarbamated polydimethylsiloxane, 877
—, of poly-β-alanine, onto carbon black, 985
—, of propylene sulfide, on crosslinked polystyrene, 2517
—, of styrene and acrylamide mixtures, onto cellulose acetate, radiation-induced, 1559
—, of vinyl monomers, onto perfluoro-3,6-dioxa-4-methyl-7-octene sulfonyl chloride containing copolymers, 1335
—, of vinyl monomers, onto perfluoro(methyl vinyl ether) containing copolymers, 1335
—, of vinyl monomers, onto polyester fibers, 1843
—, of vinyl monomers, onto silk fibers, 3283
—, of vinyl monomers, onto tetrafluoroethylene-containing copolymers, 1335
—, of vinyl monomers, onto wool fibers, 2007
Grafting of methyl methacrylate onto silk using acetylacetonate Mn(III) complex, 3283
Grafting of MMA onto oligoamide, 567
Graft polymerization, of acrylonitrile, 4449(N)
—, of methyl acrylate, 4449(N)
Graphite, *trans*-polyacetylene and, sandwich cells containing, photovoltaic and electrical properties of, 619
Graphite-reinforced epoxy resins, effect of UV and electron radiations on, 237
Graphite-reinforced polysulfone and epoxy resins, effects of ultraviolet and electron radiations on, 237
Gravimetric hydration studies, of ion clustering in ionomers, 1249
Guzman–Andrade equation, for temperature dependence of absolute viscosity of poly(cyclohexyl methacrylate), 4427(N)

Hair, human, surface wettability of, effect of additive deposition on, 1011
Halar film, aging of, high temperature, 3607
Hammett's number, effect of, on rejection of phenolic derivatives by interpolymer anionic composite RO membrane, 2929
Heat generation, associated with drawing of, poly(ethylene terephthalate), 219
Heat-resistant plasticizer, for PVC, bis(2,4-diphenylbutyl) phthalate as, 3261
Heat-resistant thermosetting phthalocyanine polymers, 353
Heat-set PET, structure–property relationship in, 3727
—, structure–property relationships in, 3115, 4203, 4219
Heat-treated fibers, force–temperature behavior of, 3915
Helium, permeability of, in poly(vinyl alcohol), 261
Herbicides, encapsulation of, starch–borate complexes for, 67
Heterogeneity, structural, in suspension PVC, 901
Hexadecyltrimethylammonium bromide, used in phase-transfer-catalyzed polymerization of acrylonitrile, 2937(N)
Hexafluoroisopropanol–pentafluorophenol, 4353
Hexamethyldisiloxane, glow discharge polymerization of, 3595
—, polymerization of, by plasma on activated charcoal, 2617
Hg(II), selective absorption of, by hydrazine-treated maleic anhydride–styrene–DVB copolymer spherical beads, 2851
Hindered phenols, as photostabilizers for butadiene rubber, 2493
HLC, comparative, tung oil polymerization by reaction with phenols using, 2735
Hollow core, effect of, on the rigidity of fine fibers, 2537
Hooke's law, for syndiotacticity-rich poly(vinyl alcohol) thin films, in water, 4009
HPLC study of reagent residues on *N*-methylolpyrrolidone-treated cottons, 3579
Hydration, degree of, diffusive permeability of solutes through poly(vinyl alcohol) membranes as function of, 533
Hydration studies, gravimetric, of ion clustering in ionomers, 1249
Hydrazine, reaction product with maleic anhydride–styrene–DVB copolymers spherical beads of, metal sorption of, 2851
Hydrogen bonding, in epoxy resin/poly(ε-caprolactone) blends, 3381
Hydrogen bonding index for lignin derivatives, 1815
Hydrogen transfer polymerization, of acrylamide, catalyzed by *n*-butyllithium, in the presence of, 985
Hydrolysis, of cotton fibers, by cellulase enzyme, 2573
—, of dextrin, 4399(N)
—, enzymatic, of cellulosic materials, 3329
Hydrolysis of dextrin in presence of 12-tungstosilicic acid, 3087
Hydrolyzability of poly(L-lactide) fibers, effect of secondary structure on, 2829
Hydrolyzed unsaturated polyesters based on 1,3-(dicarboxymethoxy)benzene cured with styrene studied using IR and $^1$H-NMR, 3855
Hydrophilicity of polypropylene, improvement of, by liquid-phase mutual irradiation of acrylic monomers and PP, 3641
Hydrophilic monomers, radiation-polymerized, porous polymer matrices prepared from, 2713
Hydrophilic vinyl monomers, grafting of, onto diethyldithiocarbamated polydimethylsiloxane, 877
Hydroquinone, di(β-hydroxyethyl)ether, poly(urethane ester), elastomers based on, thermostability of, 681
Hydrosilation vulcanization, of silicone elastomers, 2665
4-Hydroxyacetanilide, product of 1,2-epoxy-3 phenoxypropane and as amine-cured epoxy resins, 1403
*N*-(2-Hydroxyalkyl) amides, as internally blocked crosslinkers for epoxy resins, 3213(N)
Hydroxyalkyl lignin derivatives, characterization of, 1815
—, polyurethane films based on, 1831
*o*-Hydroxybenzophenone moiety, formation of, on fluorene-based polyarylates, 35
2-Hydroxyethyl methacrylate, copolymer of styrene with, surface characterization of latex of, 3651
—, grafting of mixtures of ethyl methacrylate and, onto LDPE films, 2645
Hydroxyl-terminated polybutadienes, molecular characterization, 3741
Hydroxypropyl lignin, synthesis of, 1111

Imidazole, 1-vinyl-, photoinitiated polymerization of, 1345
Imides, aliphatic, polymerization of, kinetic study of, 1611
Immobilization, of α-amylase, on polymeric carriers, 3295
—, of cellulase, using porous polymer matrix, 2713

—, of enzymes, on polymeric carriers, 3295
Impact resistance, of rubber-modified epoxy resins containing high functionality acrylic elastomers, 1381
Impregnation of mortars with monomers and their radiolytic polymerization, 3027
Infusible syndiotactic 1,2-polybutadiene, carbon fibers prepared from, 2763
Initiation, of polymerization, by diallylphthalate prepolymers, 2241(N)
Injection molding process, for rubber, temperature and cure state profiles in, 955
Inorganic additives, effect of, on the formation, composition, and combustion of cellulosic char, 1267
Instron, study of poly(*p*-dioxanone) fibers degradation using, 1865
Interaction mechanisms, in silicone rubbers, 1929
Interaction parameter, of styrene–DVB copolymers, 23
Interaction parameters, of aliphatic polyesters and polyepichlorohydrin, 1971
—, polymer–polymer, for PS–PMMA system, 1531
Interfacial polymerization, of isomeric di(mercaptomethyl)xylenes with epichlorohydrin, 4297
Interfacial properties of regenerated cellulose fiber and thermoplastic systems, 175
Interferon, induction of, on carboxyl-containing polyesters and polyurethanes, 977
Interpenetrating polymer networks, based on polyurethane–polyacrylate systems, 629
Interpolymer anionic composite RO membrane, rejection of phenolic derivatives in aqueous solution by, 2929
Inverse gas chromatography, surface characterization of intact fibers by, 3965
Iodinated polystyrene, as negative EB resist, 223
Ion exchange capacity, total, of phosphorylated *N*-vinylcarbazole polymers and copolymers, 3753
Ion exchange membranes, cation, for $Fe/Cr$ redox storage batteries, 2317
Ion exchange resin, cation, from phosphorylated *N*-vinylcarbazole HCHO copolymer, 3753
Ion exchange resins, dispersed in PVC as piezodialysis membrane, 709(N)
Ion-exchange resins in aqueous medium, stability of, effect of temperature on, 341
Ion exchangers, cation, containing sulfo and carboxyl groups, 13
Ion exclusion effects, of polyelectrolytes in DMF, 2819
Ionic interactions, in sulfonated PS ionomers, control of, by alkyl-substituted ammonium counterions, 2719
Ionomeric blends, 755
Ionomers, polyisobutylene-based, 1943
—, polyurethane, 2467
—, styrene-based, ion clustering in, 1249
—, sulfonated polyisobutylene-based, melt rheology of, 3065
—, sulfonated PS, alkyl-substituted ammonium salts of, ionic interactions in and properties of, 2719
Ion permeation, selective, through fluorocarbon polymer membrane, 117
Ion permeation through piezodialysis membrane, 709(N)
Ions, metallic, 2,3-dicarboxy cellulose combined with, 2289
IPNs, DMA study of, 2951, 2963, 2969
—, latex, based on acrylic polymers, 2969
IPNs based on poly(ethyl acrylate-co-methyl acrylate) and PUs, 2963
IPNs based on poly(methyl acrylate-co-ethyl acrylate) and PUs, 2963
IPNs based on polyurethane–polyacrylate systems, 2951, 2963
IR, study of bisphthalonitrile polymers using, 3339
—, study of glow discharge-polymerized silicon polymers using, 3595
—, study of interactions of $H_2O$ and radiation with epoxy resins using, 311
—, study of phthalocyanine polymers using, 353
—, study of polymerization of hexamethyldisiloxane by plasma, on activated charcoal, 2617
—, study of sulfonated anhydride-substituted PS cation exchange resins using, 829
—, study of TGDDM–DDS curing systems using, 2083
—, study of thermal degradation of polyester thermosets using, 763
—, study of thermal stability of ureas using, 3431
—, study of thioetherglycidyl resins prepared from isomeric di(mercaptomethyl)xylenes and epichlorohydrin using, 4297
—, study of unsaturated polyesters, 3855
—, styrene–sulfur copolymers studied using, 1225
IR analysis, of phosphorylated *N*-vinylcarbazole polymers and copolymers, 3753
Iron-filled epoxy composites, elastic moduli of, 2997
Irradiated, γ-, blends of PMMA and poly(styrene-co-acrylonitrile), protection of, 455
Irradiation, γ-, annealing behavior of PTFE subjected to, 2245(N)
—, of PU, degradation caused by, 2443
—, of PVC, degradation caused by, 2431
—, UV-, of fluorene-based polyarylates, 35
—, UV, of photosensitive polymers, 57
IR spectra, graft and block copolymers of poly(*p*-phenylene terephthalamide with studied using, 2057
—, study of Hg–Ag alloys on polyacrylamide films using, 795
—, study of photochemical degradation of chemically modified wood using, 105
—, study of polymers prepared using milled metallic oxide initiators, 291
—, study of UV-irradiated fluorene-based polyarylates, 35
IR spectroscopic study of plasticizer migration in vinyl resins, 2247(N)
IR spectroscopy, study of chlorinated natural rubber using, 4081
—, study of *P*-containing polyamides based on 1[(dialkoxyphosphinyl)methyl]diaminobenzenes using, 941
—, study of glow discharge polymerization using, 1369
—, study of polyelectrolyte complexes using, 2143
—, study of structure–property relationship in heat-set PET using, 3727
—, study of substituted [(phosphinyl)methyl]-diamino- and dinitro- benzenes using, 691
—, study of suspension PVC morphology using, 901
—, study of triphenyltin methacrylate copolymers using, 509
IR studies, on dibutyltinlaurate catalyst for silicone rubbers, 1951
—, of poly(*p*-phenylene terephthalamide), *N*-octadecylated, 141
Isobutylene, cationic polymerization of, 1215
Isophthaloyl–terephthaloyl–bisphenol-A copolyesters, blends of PET with, 1629
Isotactic polypropylene, electrical breakdown in, 4183
—, thermal oxidation of, 465
Isotherms, water absorption, for cured bisphenol-A-type epoxy resins, 2021
Itaconimides, citra, polymethylene, polymerization of, 1611
Iterative procedure to evaluate Mark–Houwink constants, for bisphenol C-2 polycarbonate, 2683

Jute fiber, short, styrene–butadiene composites reinforced by, 1355

Kevlar fibers, force–temperature behavior of, 3915
Kinetic parameters, of methyl acrylate polymerization in presence of 2-mercaptobenzothiazole, 4199
Kinetics, of ethylene polymerization, at high temperature, with Ziegler–Natta catalysts, 1171

—, of poly(butylene terephthalate) solid-state polycondensation, 2873
—, sorption, of polystyrene–*n*-hexane systems, effect of thermal history on, 4145
Kinetic study, of the polymerization of aliphatic imides, 1611
Knit line strength, in RIM process, effect of processing conditions on, 1959
Knudsen flow, of gases, in cellulose acetate membrane, freeze-dried porous, 583
Kolmogorov's theory, in emulsion polymerizations, 3925
Krypton, absorption of, on intact fibers, surface characterization of fibers by IGC and, 3965
Kubat–Rigdahl procedure, epoxy polymers analyzed using, 1241

D,L-Lactide, 4265
D,L-Lactide polymerization with tetraphenyltin, 4265
Lactones, polymerization of, sodium alkoxide initiated, 2261
LALLS, analysis of MWD's of PE's using, 1071
Lap shear adhesion, between laminated sheets of polycarbonate and SAN copolymers, 3131
Larché and Cain theory, of vapor diffusion through polymer membranes, 731
Laser light scattering, GPC and, molecular weight of styrene–butylacrylate determined using, 925
Latex, natural rubber, grafting of MMA onto, radiation-induced, 1515
—, of poly(styrene-co-2-HEMA), surface characterization of, 3651
—, rubber, natural, epoxidation of, 1661
Latex IPNs based on acrylic polymers, 2969
Latex rubber, photoinduced tension of, 2797
Lead, polymer bound, as fire retardants, in PE–silicone blends, 3883
Lead zirconate-titanate piezoelectric ceramic, 611
Light scattering, laser, GPC and, molecular weight of styrene–butylacrylate determined using, 925
Lignin, engineering plastics from, 1111, 1815, 1831
—, grafting of acrylamide onto, 3457
—, hydroxypropyl, engineering plastics from, 1111
—, hydroxypropyl, synthesis of, 1111
Lignocellulose materials, cationization of, 637, 643
—, containing quarternary ammonium groups, 637, 643
Liquid, transformation to amorphous solid, in styrene polymerization, 2017
Liquid crystalline behavior, of poly(*p*-phenylene terephthalamide), *N*-octadecylated, 141
Liquid crystalline behavior of polymeric glycols terminated with aromatic diester and diacid mesogenic groups, 547
Liquid crystal–PVC composite membranes, membrane structure and permeation properties of, 3955
Liquids, transport into plasticized PVC, 3391
Lithium chloride, 3863
Lithographic characteristics, of iodinated polystyrene negative EB resist, 223
LOI, of 1-[di(2-chloroethoxyphosphinyl)methyl]-diaminobenzenes cured epoxy resins, 197
—, of phenoxaphosphine-containing copolyesters, 299
Luminescence emission of isotactic polypropylene, 2843

Macroporous bifunctional ion exchangers containing sulfo and carboxyl groups, 13
Macroreticular chelating resins, influence of porosity on adsorption of heavy metal ions in an aqueous solution, 2281
Macroreticular chelating resins containing dihydroxyphosphino and/or phosphono groups and their adsorption ability for uranium, 2045
Magnetic ferric oxide particles, 4461(N)
Magnetite ore, titano, Egyptian, PMMA prepared by emulsion polymerization in presence of, 3677
Maleic anhydride–styrene–DVB copolymers, spherical beads of, 2851
Maleimides, bis-, preparation of unusual polyimides from, 891
Malonyl dihydrazide, poly(methyl vinyl ketone-co-4-vinylpyridine) membranes crosslinked using, 1723
Mangrove bark, adhesives from, 1415
Mark–Houwink constants, for bisphenol C-2 polycarbonate, GPC procedure to evaluate, 2683
Mark–Houwink equation, for polyvinylbutyral, in tetrahydrofuran, 803
Mark–Houwink equation and GPC calibration for linear short-chain branched polyolefins, 3763
Mark–Houwink exponent, for EVA copolymers, 1569
Mass transfer coefficients, 3185
Mazote, boiler deposit, burnt, PMMA prepared by emulsion polymerization in presence of, 3687
Mechanical and gas transport properties of poly-ϵ-caprolactone model networks, 3561
Mechanical and transport properties of coextruded films, 2359
Mechanical behavior of PC–PET blends, 3231
Mechanical properties, of acrylic-monomer-grafted nylon 6 fiber, 1327
—, of paper sheets, prepared from carbamoylethylated wood pulp, 3901
—, of poly(*p*-phenylene terephthalamide), *N*-octadecylated, 141
—, of PVC–liquid crystal composite membranes, 3955
Mechanical properties of ABS/polycarbonate blends, 3253
Mechanical properties of poly(L-lactide) fibers, effect of secondary structure on, 2829
Mechanical properties of short fiber-reinforced styrene–butadiene composites, 1355
Mechanochemical polymerization of acetylene on γ-alumina and other materials, 3445
Mechanochemical polymerization of propylene and ethylene, alumina powder-initiated, 291
Melamine, condensates of HCHO and *m*-phenylenediamine with, porous sorbents based on, 1617
Melt drawability, of PP, effects of coupling agents on, 2599
Melt flow index, upgrading, to rheogram approach in the low shear rate region, 1581
Melting points, of ethylene–1-butene copolymers, determined using DSC and $^{13}$C-NMR, 3161
Melt polymerization of D,L-lactide, 4265
Melt properties, of injection molded blends of PC and SAN copolymers, 3131
Melt rheology of ion-containing polymers, 3065
Melt spinning of fibers, radial temperature differences during, 3621
Melt spinning properties, of HDPE/PS blends, 2117
Melt viscosity of acrylic copolymers, 3479
Membrane, cellulose acetate, gas separation by freeze-dried porous, 583
—, chlorine-resistant, for RO, 3359, 3369
—, fluorocarbon polymer, ion permeation through, selective, 117
—, polymer, controlled release of organic substances using, 211
—, RO, chlorine-resistant, 3359, 3369
Membrane piezodialysis, selective permeation of ions through, 709(N)
Membranes, cation exchange, for Fe/Cr redox storage batteries, 2317
—, cellulose acetate, modified, for desalination, 1743
—, composite, based on plasma-polymerized monomers, gas permeability and permselectivity of, 2981
—, diffusion through semipermeable, 3991
—, polymer, gas permeation in, 2413
—, polymers, vapor diffusion through, stress effects in, 731
—, reverse osmosis, poly(methyl vinyl ketone-co-4-vinylpyridine), 1723
—, ultrafiltration, asymmetric polyimide, 743

2-Mercaptobenzothiazole, polymerization of methyl acrylate in the presence of, 4199
—, as retarder of methyl acrylate polymerization, 4199
Mercerization, of cellulose, 4175
Mesogenic group-terminated polymeric glycols, liquid crystalline behavior of, 547
Metal hydroxides, nucleation of PET crystallization by, 853
Metal ions, heavy, adsorption of, by macroreticular chelating resins, effect of porosity on, 2281
Metallic ions, 2,3-dicarboxy cellulose combined with, 2289
Metallic oxides, fractured, ethylene polymerization induced by, 3401
—, milled, polymerizations of ethylene and propylene initiated by, 291
Metallophosphate-supported Ziegler–Natta catalysts for ethylene polymerization, 3491
Methacrylic acid, effect of low quantities of, on swelling behavior of PHEMA, 1749
—, fluoroalkyl esters of UV- and γ-ray initiated polymerization of, 4061
—, grafting of, onto PE films, γ-irradiation-induced, 1041
—, neopentylglycol diester of, vulcanization of natural rubber latex with, γ-radiation induced, 965
—, triphenyltin ester of, copolymerization of, 509
Methacrylic acid-based ionomers, ion clustering in, 1249
Methacrylic acid esters, copolymers of, with triphenyltin methacrylate, 509
Methacrylic acid grafted PE films, dynamic mechanical properties of, 1041
Methacrylic acid-grafted PP, electrokinetic properties of, 2989
Methacrylic monomers, grafting of, onto cellulose, 4247
Methyl acrylate, copolymers of, with triphenyltin methacrylate, 509
—, copolymers of methyl methacrylate and, melt viscosity of, 3479
—, copolymer with ethylene, coextruded films of PE or nylon 6 and, mechanical and transport properties of, 2359
—, grafting of, onto PP, radiation-induced, solvent effect on, 3641
—, graft polymerization of, 4449(N)
—, polymerization of, in presence of 2-mercaptobenzothiazole, 4199
Methyl methacrylate, copolymers, containing, bifunctional cation exchangers from, 13
—, copolymers of, miscibility of acrylonitrile copolymers with, 99
—, copolymers of, with triphenyltin methacrylate, 509
—, copolymers of methyl acrylate and, melt viscosity of, 3479
—, emulsion polymerization of, in presence of burnt mazote boiler deposit, 3687
—, emulsion polymerization of, in presence of Egyptian delta titano magnetite ore, 3677
—, grafting of, onto cellulose, Cr(VI)-initiated, 319
—, grafting of, onto nylon 6 fiber, 1327
—, grafting of, onto oligoamide, 567
—, grafting of, onto PP, radiation-induced, solvent effect on, 3641
—, grafting of, onto rubber, radiation-induced, 1515
—, grafting of, onto silk fibers, $Mn(acac)_3$-initiated, 3283
—, grafting of, onto wood pulp, 2921
—, grafting of, onto wool fibers, V(IV) complex-initiated, 2007
Methyl methacrylate copolymer films containing $CaO–SiO_2–H_2O$ macromolecules, Ca-complexed, durability of, 2889
*N*-Methylol pyrrolidone, HCHO release from, 3569
*N*-Methylolpyrrolidone-treated cottons, reagent residues on, 3579
*N*-Methylol system, formaldehyde release from, 3569
Methyl orange, controlled release of, using amino responsive membranes, 211
Methyl orange dye, 3991
Methyl salicylate, photodegradation of, in poly(methyl methacrylate), 4161
Micelle, behavior of, 4399(N)
—, reversed, 4399(N)
Micro-Brownian motion, in cellulose acylates, 3981
Microcomputer, use of, with a gas permeation apparatus, 2413
Microphase separation, in urethane elastomers, as seen through NMR measurements, 1203
Microphase state of oligobutadienediol-based polyurethaneureas, 1919
Microscopic analysis, of PVC–liquid crystal composite membranes, 3955
Microscopic approach, to energy dissipation, during viscoelastic crack propagation, 1537
Microscopy, electron, morphology of poly(ether esteramide)s studied using, 1141
—, electron, morphology of poly(ether ester)s studied using, 1157
—, interference, curing of positive resists studied using, 1427
Microstructure of biaxially drawn ultrahigh molecular weight polyethylene, 2347
Migration of plasticizer in vinyl resins, 2247(N)
Miscibility, aliphatic polyester with polyepichlorohydrin, 1971
—, of poly(styrene-co-acrylonitrile) and poly(α-methyl styrene-co-acrylonitrile), 99
—, of poly(vinyl acetate-co-vinyl chloride), with poly(neopentyl glycol adipate), 1463(N)
—, of poly(vinyl chloride-co-vinyl acetate), with poly(neopentyl glycol adipate), 1463(N)
—, of urethane elastomers with styrene–styrene sulfonic acid copolymers, 755
Miscibility of poly(neopentyl glycol adipate) with chlorinated polypropylene and with vinyl chloride/vinyl acetate copolymers, 1463(N)
Mixing, effects of degree of, on the properties of filled elastomers, 499
MMA, grafting of, onto carbon-black, anionic catalyst-initiated, 251
$Mn(acac)_3$-initiated grafting of methyl methacrylate onto silk fibers, 3283
$Mn_2(CO)_{10}$, Ziegler–Natta catalysts prepared from, PEs obtained with, 1187
$Mo(CO)_6$, Ziegler–Natta catalysts prepared from, PEs obtained with, 1187
Modeling of polymerization reactions, 1215
Modification, chemical, of PS, 829
Moduli, dynamic for short fiber-CR composites, 661
—, elastic, of particulate-filled polymers, 2997
Modulus of epoxy resins, amine-cured, additives for increasing, 1403
Molecular characterization of hydroxyl-terminated polybutadienes, 3741
Molecular weight, absolute, of a styrene–butyl acrylate emulsion copolymer, determination of, by LALLS and GPC/LALLS, 925
—, effect of, on the melt viscosity and fracture energy of BDSDA/APB, 1027(N)
—, of polychloroprene, effect of, on rheological properties of solutions of, 153
—, of polymers, by GPC using densitometer as detector, 595
—, of unsaturated polyester, 447
Molecular weight distributions, of PEs, LALLS & SEC used in study of, 1071
Molecular weight of acid dyes, influence of, on the yield stress of dyed nylon monofilament, 3241
Molecular weights, of PP, effects of coupling agents on, 2599
Molybdenum oxides, effects of, on pyrolysis of model PVC compounds, 3783
Monomer content, in polydiallylphthalate, 407
Monomers polyfunctional, vulcanization of natural rubber latex with, γ-radiation induced, 965
Monte Carlo simulation of water diffusion into epoxy matrices, 2453

Morphological model, for ionomer properties influenced by excess neutralizing agents, 1943
Morphology, of poly(*p*-dioxanone) fibers, 1865
Morphology of extruded PE, effect of, on absorption of dicumyl peroxide by, 2383
Morphology of poly(ether esteramide)s, based on poly(tetramethylene oxide) soft segments, 1141
Morphology of poly(ether ester)s, based on poly(tetramethylene oxide) soft segments, 1157
Morphology of polyethylenes obtained with first and second generation of Ziegler–Natta catalysts, 1187
Morphology of PS–PMMA diblock copolymers precipitated by different precipitants, 4237
Mortar, impregnated with radiation-polymerized styrene, fracture morphology of, 2069
Mortars, mixtures of styrene and acrylonitriles impregnated into, radiation polymerization of, 3027
Multiaxially oriented polyethylene morphologies, with high mechanical properties in planar directions, 867
Multiphase elastomeric networks, 4455(N)

Necking region, $T_g$ of PET filaments in, 4395(N)
Neopentylglycol dimethacrylate, vulcanization of natural rubber latex with, γ-radiation induced, 965
Network changes, in V-belt rubber base, during simulated service testing, 427(N)
Networks, structural differences in photochemically and chemically prepared, IGPC characterization of, 4309
Network structure in bisphthalonitrile polymers, 3339
Neutralization, extent of, effect on melt rheology of ionomers, 3065
Neutralizing agent, excess, effect on melt rheology of ionomers, 3065
Neutralizing agents, ionomer properties influenced by excess, 1943
$(NH_4)_2HPO_4$, effect of, on formation and properties of cellulosic char, 1267
Nitrile epoxy adhesive, modified, 4403(N)
Nitrogen, permselectivity of oxygen and, in composite membranes based on plasma-polymerized monomers, 2981
NMR, $^{13}C$-, characterization of 1-butene–ethylene copolymer using, 3161
—, $^{13}C$-, CP-MAS, study of enzymatic hydrolyzed cellulosic materials using, 3329
—, $^{13}C$-, CP–MAS, study of mechanochemical acetylene polymerization using, 3445
—, $^{13}C$-, study of chlorinated natural rubber using, 4081
—, $^{13}C$-, styrene–sulfur copolymers studied using, 1225
—, $^{19}F$-, study of epoxy resins cured using, $BF_3$–MEA, 3697
—, FT, study of self-diffusion of small molecules in cellulose gels using, 823
—, $^1H$-, characterization of lignin derivatives using, 1815
—, $^1H$-, study of *P*-containing polyamides based on 1[(dialkoxyphosphinyl)methyl]diaminobenzenes using, 941
—, $^1H$-, study of substituted [(phosphinyl)methyl]-diamino- and dinitro- benzenes using, 691
—, $^1H$-, study of tetrad distribution in PDT/FT copolyterephthalate studied using, 3587
—, $^1H$-, styrene–sulfur copolymers studied using, 1225
—, $^1H$-, unsaturated polyesters, 3855
—, measurement of microphase separation in urethane elastomers using, 1203
—, spin-echo, study of self-diffusion of small molecules in cellulose gels using, 823
—, study of PS degradation using, 2561
—, study of thioetherglycidyl resins prepared from isomeric di(mercaptomethyl)xylenes and epichlorohydrin using, 4297
—, study of tung oil polymerization by reaction with phenols using, 2735
NMR study, 2299
NMR study of *N,N'*-(2-propyloximino)-4,4'-methylenebis(phenylcarbamate) as post-polymerization crosslinking agent, 2307
*N,N'*-Bismaleimido-4,4'-diphenyl methane, preparation of unusual polyimides from, 891
*N,N'*-Bismaleimido-1,8-octane, preparation of unusual polyimides from, 891
*N,N'*-dimethyl-substituted nylon 6,12, 4443(N)
*N,N'*-(2-Propyloximino)-4,4'-methylenebis(phenylcarbamate), as post-polymerization crosslinking agent, 2299
Nonionic polymers, water-soluble, adsorption of, onto cellulosic fibers, 1675
Nonvolatile diluents, 4411(N)
Nucleating agents, 4465(N)
Nucleation of PET crystallization by metal hydroxides, 853
Nylon, chloroprene rubber composites with, dynamic moduli of, 661
Nylon 3, hydrogen transfer grafting of, onto carbon black, 985
Nylon 6, coextruded films of other polymers and, mechanical and transport properties of, 2359
—, compatibility of, with PMMA–oligoamide graft copolymer, 567
—, depolymerization of, 3947
—, IR spectra of, 3907
—, short-fiber, composites of CR with, 4107
Nylon 6,6, degradation of thermally aged, 1125
Nylon 6,12, compatibility with poly(styrene-co-vinyl-phenyl hexafluorodimethyl carbinol), 4443(N)
—, *N,N'*-dimethyl-substituted, 4443(N)
Nylon 6 fiber, grafted with acrylic monomers, properties of, 1327
Nylon fibers, surface wettability of, effect of additive deposition on, 1011
Nylon monofilament, dyed, effect of acid dye MW on yield stress of, 3241
Nylon 6 reactors, with end-point constraints, optimization of, 2177

*N*-Octadecylated poly(*p*-phenylene terephthalamide), 141
Ogston plot, for diffusive permeability of solutes through poly(vinyl alcohol) membranes, 533
Oligoamide, grafting of MMA onto, 567
Oligoamide graft copolymer, from poly(MMA-co-methacryloyl chloride), 567
Oligobutadienediol, polyurethaneureas based on, 1919
Oligoesteralcohols, from DMT waste, solid-foam PUs prepared using, flame retardant, 1701
—, for preparing reduced flammability PU foams, 577
Oligomeric crystals, surface precipitation of, in PET films, effect of coatings on, 4321
Oligo(styrene-co-allyl alcohol), binary mixtures of aliphatic polyesters and, phase behavior of, 3837
Optical conductors, polymeric, 2231
Optical microscopy, birefringence in heat-set PET fibers studied using, 3115
Optimization of nylon 6 reactors with end-point constraints, 2177
Organic polymers, nonpolar, 4335
Organic solvents, effects of, on the grafting of acrylic acid to PET by glow discharge, 3547
Organoaluminum compounds, cationic polymerization of isobutylene using, 1215
Organophosphorus extractants, vinyl polymers prepared in the presence of, morphology of, 3825
Organotin polymers, 509
Orientation variations near surfaces in semicrystalline polymers, 1985
Oriented polyester yarns, dynamic mechanical properties of, 933
Orthogonal collocation technique, for analysis of wiped film reactor, 3217

Osmosis, electro, as factor in crazing of enameled wire, 1309
—, in epoxy and polyester resins, crack growth during, 809
Oxidation, photo-, of wood surfaces, study of, using ESCA, 2777
—, of rubber, study of, by thermoanalysis, 2627
—, thermal, of PP, 465
Oxidative coupling of 2,6-dimethylphenol, and its sulfonation, 4017
—, preparation of poly(2,6-dimethylphenylene)oxide, 4017
Oxide, metallic, milled, polymerizations of ethylene and propylene initiated by, 291
Oxides, metallic, fractured, ethylene polymerization induced by, 3401
Oxidation, of poly(4-vinylpyridine-co-methyl vinyl ketone) membranes, flux improvement by, 1723
Oxygen, 4115
—, permeability of, in composite membranes based on plasma-polymerized monomers, 2981
—, permselectivity of nitrogen and, in composite membranes based on plasma-polymerized monomers, 2981
Oxygen index, limiting, of *P*-containing polyamides, 941

Packings grafted with polar monomers, 3013
Paints, antifouling, 4091
Paper sheets, prepared from carbamoylethylated wood pulp, mechanical properties of, 3901
—, prepared from cyano ethylated wood pulp, mechanical properties of, 4329
Paris parameters, for thermooxidative aged structural adhesives, 3499
Particle growth, in semicontinuous emulsion polymerization, of acrylic monomers, 1
Particle sizes of reinforcing silica precipitated into elastomeric networks, 3209(N)
Particulate-filled polymers, elastic moduli of, 2997
PC, blends of ABS and, mechanical properties of, 3253
—, blends of PET with, thermal and mechanical behavior of, 3231
PDT/FT copolyterephthalate, tetrad distribution in, condensation temperature effect on, 3587
PE, HD, polymer-bonded networks of cellulose fibers, properties of, 175
Peeling, spontaneous, of elastomers, kinetics of, 3269
Perfluoro-3,6-dioxa-4-methyl-7-octene sulfonyl fluoride, copolymers of TFE, effects of ionizing radiation on, 1335
—, grafting of vinyl monomers to, radiation-induced, 1335
Perfluoro(methyl vinyl ether), copolymers of TFE, effects of ionization radiation on, 1335
Permeability, of deuterium and helium, in poly(vinyl alcohol), 261
—, diffusive, of solutes in poly(vinyl alcohol) membranes as a function of the degree of hydration, 533
—, gas, of composite membranes based on plasma-polymerized hexamethyldisiloxane or crosslinked dimethylpolysiloxane, 2981
—, gas, of crosslinked poly(ε-caprolactone), 3561
—, of gases, in cellulose acetate membrane, freeze-dried porous, 583
—, of vapors in polymer membranes, 3663
Permeability coefficient of proton-irradiated PET thin films, 2785
Permeability water, of cellulose acetate membranes, grafted with mixtures of acrylamide and styrene, 1559
Permeation, gas, in PC-copolyester blends, effects of crystallinity on, 845
—, ion, through fluorocarbon polymer membranes, 117
—, selective, of ions through piezodialysis membrane, 709(N)
Permeation apparatus, gas, use of microcomputer with, 2413
Permeation properties, gas, of PVC–liquid crystal composite membranes, 3955
Permselectivity, of composite membranes based on, 2981
—, of plasma-polymerized 1-hexene and cyclohexene, 2981
Peroxide crosslinked networks, comparison with peroxide cured, IGPC characterized, 4309
Peroxydisulfate-ascorbic acid redox system, grafting of acrylate monomers onto casein initiated by, 329
PE–silicone blends, polymer-bound metals as fire retardants in, 3883
PET, blends of PC with, thermal and mechanical behavior of, 3231
—, grafting of acrylic acid onto, glow discharge-induced, effects of organic solvents on, 3547
—, heat-set, structure–property relationship in, 3727, 4203, 4219
—, short-fiber, composites of CR with, effect of absorbed water on dynamic modulus of, 4107
—, surface precipitation of oligomeric crystals in, effect of coatings on, 4321
PET fibers, heat-set, structure–property relationship in, 3115
PET filaments, $T_g$ of, in necking region, 4395(N)
PET films, solvent-induced crystallization of, dimensional changes during, 3197
PET thin films, permeability coefficient of proton-irradiated PET thin films, 2785
pH, effect of, on rejection of phenolic derivatives by interpolymer anionic composite RO membrane, 2929
Phase behavior, of binary mixtures of oligo(styrene-co-allyl alcohol) and aliphatic polyesters, 3837
Phase morphology, of HDPE/PS blends, 2117
Phase separation, effect of, on the structure and permeability of gelatin–dextran films, 555
—, in segmented polyurethanes, kinetics of, 2529
Phase-transfer-catalyzed polymerization of acrylonitrile, 2937(N)
Phenolic derivatives, rejection of, in aqueous solution, by interpolymer anionic composite RO membrane, 2929
Phenolics, two-stage, cured, improvement of performance of, 2395
Phenols, polymerization of tung oil by reaction with, 2735
—, reactions of, with tung oil, 1063
Phenoxaphosphine-containing copolyesters, flame resistance of, 299
2-Phenyl-5-(3′,5′-di-*tert*-butyl-4′-hydroxyphenyl)tetrazole, substituted 2-phenyl, as antioxidants for rubbers, 89
2-Phenyl-4,6-dihydrazino-*s*-triazine, poly(methyl vinyl ketone-co-4-vinylpyridine), membranes crosslinked using, 1723
*m*-Phenylenediamine, condensates of HCHO and melamine with, porous sorbents based on, 1617
pH of silane solution, effect of, on the adhesion of polyimide to a silica substrate, 2039
[(Phosphinyl)methyl]benzenes, aminated, fire-resistant polymers from, 691
—, nitrated, fire-resistant polymers from, 691
[(Phosphinyl)methyl]diaminobenzenes, dialkoxy, *P*-containing polyamides based on, 941
—, fire-resistant polymers from, 691
[(Phosphinyl)methyl]dinitrobenzenes, fire-resistant polymers from, 691
Phosphonites, prepared from recrystallization residue of dimethyl esters of mixed isomeric phthalic acids, 577
Phosphono-containing macroreticular chelating resins, 2045
Phosphorus-containing antipyrenes, solid-foam PUs prepared using, flame retardant, 1701
Phosphorus-containing polyamides and copolyamides based on 1-[(dialkoxyphosphinyl)-methyl] diaminobenzenes, 941
Phosphorus-containing polymers, flame resistance of, 299

Phosphorylated *N*-vinylcarbazole polymer and *N*-vinylcarbazole HCHO copolymer, cation exchange resins from, 3753
Phosporescence emission, of isotactic polypropylene, 2843
Photoacoustic spectroscopy, PVC degradation monitored using, 2431
—, study of natural weathering of polyethylene films using, 1491
Photochemical crosslinked networks, comparison with peroxide cured, IGPC characterized, 4309
Photochemical degradation of acetylated, methylated, phenylhydrazine-modified, and ACC-treated wood, 105
Photochemistry of polymeric systems, 125, 651
Photocrosslinking of basic polymers and copolymers, 651
Photocrosslinking of polymers and copolymers containing pyrazine mono- and di-*n*-oxide groups, 125
Photodegradation, of methyl salicylate, in poly(methyl methacrylate), 4161
—, of PU, monitored by photoacoustic spectroscopy, 2443
—, of PVC, monitored by photoacoustic spectroscopy, 2431
Photo-Fries rearrangement of fluorene-based polyarylates, 35
Photografting, of hydrophilic vinyl monomers, onto diethyldithiocarbamated polydimethylsiloxane, 877
Photoinduced tension of polymers, 2797
Photoinitiated polymerization of 1-vinylimidazole, 1345
Photoinitiators, in curing of photosensitive prepolymers, 57
Photolytically degraded PMMA films, service life of, 777
Photomodification of polymer surfaces, 2941(N)
Photooxidation, of wood surfaces, study of, using ESCA, 2777
Photooxidized polyolefin films, biodegradability of, 2581
Photopolymerization, of fluoroalkyl methacrylates, 4061
Photopolymer resist, Riston, photoinduced tension of, 2797
Photoresist test, for basic polymers and copolymers, 651
Photosensitive polymers, dynamic viscoelastic measurements of, 57
Photosensitive rubbers, synthesis and properties of, 481
Photosensitive silicone polymers, polymer waveguides prepared from, 2231
Photostabilizers, for butadiene rubber, antioxidants as, 2493
Photovoltaic devices, solar, methyl salicylate-containing poly(methyl methacrylate) lenses for use in, 4161
Photovoltaic properties, of *trans*-polyacetylene-containing sandwich cells, 619
Phthalic anhydride, ethylene carbonate reaction with, kinetics of, 4287
Phthalocyanine polymers, thermosetting, heat-resistant, 353
Phthalonitriles, bis-, polymerization of, 353
pH titration, characterization of cation exchange resin using, 1999
—, of phosphorylated *N*-vinylcarbazole polymers and copolymers, 3753
Piezodialysis membrane, selective permeation of ions through, 709(N)
Piezoelectric ceramic/polymer composites, 611
Plasma polymerized membranes and gas permeability, 2981
Plasticizer, migration of, in vinyl resins, 2247(N)
—, for PVC, bis(2,4-diphenylbutyl) phthalate as, 3261
Plasticizers, release of, from polymer films, 3185
—, transport out of plasticized PVC, 3391
Plexar 3, coextruded films of PE or nylon 6 and, mechanical and transport properties of, 2359
PMMA, blends with, poly(styrene-co-acrylonitrile), protection of, γ-irradiated, 455
Polarity, surface, 4335
Polarizing microscope, study of liquid crystalline behavior of mesogenic group-terminated polymeric glycols using, 547
Polar monomers, PS packings for GPC grafted with, 3013
Poly(butyl glutamate)/poly(benzyl glutamate), polypeptide blends of, 4279
*trans*-Polyacetylene, sandwich cells with lead and graphite, electrical and photovoltaic properties of, 619
Polyacrylamide, as additives to UF resins, to reduce HCHO emission, 45
—, complexes of $Ag^+$ with, 795
—, crosslinking of, by *N,N'*-(2-propyloximino)-4,4'-methylenebis(phenylcarbamate), 2307
—, effect of, on methyl orange–poly(1-vinylimidazole) interaction, 3991
Polyacrylamide–$AgNO_3$ aqueous solution, polymer substrates produced by, x-ray analysis of Ag–Hg alloy films, 3813
Polyacrylamide films, preparation of Ag–Hg alloy on, 795
Polyacrylate–polyurethane systems, IPNs based on, 629
Poly(acrylic acid), crosslinking of, by *N,N'*-(2-propyloximino)-4,4'-methylenebis(phenylcarbamate), 2307
Poly(acrylonitrile-co-styrene), blends of PMMA with, protection of, γ-irradiated, 455
Poly-β-alanine, hydrogen transfer grafting of, onto carbon black, 985
Polyamides, 4341
—, linear, ultrasonic and dielectric absorption in, 2635
—, reverse osmosis membrane from, chlorine-resistant, 3359
Polyamides phosphorus-containing based on 1-[(dialkoxyphosphinyl)methyl] diaminobenzenes, 941
Polyamides reverse osmosis membrane from, chlorine-resistant, 3369
Polyaniline coatings, 4433(N)
Polyarylate, blends of PET with, 1629
Polyarylates, fluorene-based, photo-Fries rearrangement of, 35
Polybutadiene, chloroacetylated, photosensitivity of, 481
—, *cis*, chloroacetylated, photosensitivity of, 481
—, graft and block copolymers of poly(*p*-phenylene terephthalamide with, 2057
—, tetrazoles as antioxidants for, 89
1,2-Polybutadiene, syndiotactic, carbon fibers prepared from, 2763
Polybutadienes, azoester-modified, enhanced autoadhesion in, 3803
—, HO-terminated, molecular characterization of, 3741
Poly(butadiene–urethane), adhesive bonds between glass or metal substrates and, durability of, 3147
Poly(3-buten-2-one), 4115
Poly(butylene terephthalate) solid-state polycondensation, chemical kinetics and diffusion in, 2873
Poly(ε-caprolactone), blends of SAN with, compatibility of, 1781, 1797
—, blends with epoxy resin, hydrogen bonding in, 3381
—, crosslinked, 3561
—, crosslinked, gas transport properties of, 3561
—, crosslinked mechanical properties of, 3561
Poly(ε-caprolactone)s, cast urethane elastomers prepared from, 2261
Polycarbonate, blends of copolyester with, gas permeation in, 845
Polycarbonate blends with SAN copolymers, 3131
Polycarbonates, blends of copolyesters and, effect of crystallinity on mechanical properties of, 2251

Polychloroprene, carbon-black-filled, effect of degree of mixing on properties of, 499
—, θ solvents for, rheological properties of solutions in, 153
Polychloroprene rubber composites, short silk fiber-reinforced, 3097
Polycondensation, of ethylene carbonate with phthalic anhydride, kinetics of, 4287
—, of isomeric di(mercaptomethyl)xylenes with epichlorohydrin, 4297
—, of phthalic anhydride with ethylene carbonate, kinetics of, 4287
—, solid-state, poly(butylene terephthalate) prepared by, 2873
Polycondensation stage of poly(ethylene terephthalate) reactors, optimization of, 1045
Poly(cyclohexyl methacrylate), viscosity–temperature relationships for dilute solutions of, in MIBK, 4427(N)
Polydiallylphthalate, pendant allyl and monomer content in, 407
Poly(dimethylaminomethacrylate-co-methyl methacrylate), cinnamic or cinnamylidene group substituted, photochemistry of, 651
Poly(4,4-dimethyl-1-3-one), 4115
Poly(2,6-dimethylphenylene)oxide, prepared by oxidative coupling of 2,6-dimethylphenol, and its sulfonation, 4017
Poly(2,6-dimethyl-1,4-phenylene oxide), carboxylated, thermal properties of blends of atactic PS and, 2679(N)
Polydimethylsiloxane, 4455(N)
Poly(*p*-dioxanone) fibers, tensile strength and morphology of, effects of enzymes and gamma irradiation on, 1865
Polyelectrolyte complexes, water sorption on, 2143
Polyelectrolytes, interactions between dyes and, effect of polymer–polymer interactions on, 3991
—, SEC study of, 2819
Polyene films, conjugated, prepared by dehydrochlorination of, 3171
Polyester, aliphatic, miscibility with polyepichlorohydrin, 1971
—, co-, blends of PC with, gas permeation in, 845
—, unsaturated, viscosity of, 447
Poly(esteramide ether)s, based on poly(tetramethylene oxide) soft segments, morphology of, 1141
Polyester-based polyurethanes, segmented, structure–property relationship in, effect of polymerization conditions on, 2695
Polyester-based PU, segmented, kinetics of phase separation in, 2529
Poly(ester ether)s, based on poly(tetramethylene oxide) soft segments, morphology of, 1157
Polyester fibers, diffusion of dyes in, 1475, 1483
—, fatigue failure of, 4363
—, grafting of binary mixtures of vinyl monomers onto, synergism during, 1843
—, structural changes in, 4363
Polyester resins, osmosis in, crack growth during, 809
Polyesters, aliphatic, binary mixtures of oligo(styrene-co-allyl alcohol) and, phase behavior of, 3837
—, carboxyl-containing, from dibenzyl-L-tartrate and dicarboxylic dichlorides, 977
—, co-, blends of PCs and, effect of crystallinity on mechanical properties of, 2251
—, flame-retardant, degradation and TGA of, 911
—, saturated and unsaturated, based on 1,3-(dicarboxymethoxy)benzene, 3855
—, unsaturated, curing studies on, 1553
Polyester thermosets, thermal degradation of, 763
Poly(ester–urethane) elastomers, thermoplastic, thermostability of, 681
Polyester yarns, partially oriented and draw-textured, dynamic mechanical properties of, 933
Polyether-based polyurethanes, segmented, structure–property relationship in, effect of polymerization conditions on, 2695
Polyether-based PU, segmented, kinetics of phase separation in, 2529
Poly(ether esteramide)s, based on poly(tetramethylene oxide) soft segments, morphology of, 1141
—, comparison of morphologies of poly(ether ester)s and, 1157
Poly(ether ester)s, based on poly(tetramethylene oxide) soft segments, morphology of, 1157
—, comparison of morphologic, of poly(ether esteramide)s and, 1157
Polyethylene, electrically conductive, resistivity behavior of, 1639
—, extruded, effect of morphology on absorption of dicumyl peroxide by, 2383
—, grafting of acrylic acid to, radiation-induced, 3795
—, HD, blends of PS with, properties of, 2117
—, HD, multiaxially oriented, 867
—, mass transport of vapors through, 3663
—, oriented, orientation variations near surface of, 1985
—, reclaimed, shear modification and reprocessing of, 2501
—, sensitized and unsensitized, UV irradiated, biodegradability of, 2581
—, short-chain branched, GPC calibration for, 3763
—, short-chain branched, Mark–Houwink equation for, 3763
—, ultrahigh molecular weight, biaxially drawn, microstructure of, 2347
—, waste, composite from mineral fillers, natural fibers and, 2405
Poly(ethylene adipate) glycol, poly(urethane ester), elastomers based on, thermostability of, 681
Polyethylene blends, rheological behavior of, 2205
Polyethylene films, grafting of methacrylic acid onto, γ-irradiation-induced, 1041
—, low density, grafting of HEMA–EMA mixtures on, radiation-induced, 2645
—, methacrylic acid grafted, dynamic mechanical properties of, 1041
—, weathering of, use of photoacoustic spectroscopy in study of, 1491
Poly(ethylene-*g*-maleic anhydride), lead bound to, as fire retardants, in PE–silicone blends, 3883
Polyethylene/PS blends, phase distribution morphology, rheological measurements, extrusion, and melt spinning behavior, 2117
Polyethylenes, coextruded films with other polymers, mechanical and transport properties of, 2359
—, MWD's of, SEC analyses of, 1071
—, obtained with Ziegler–Natta catalysts, morphologies of nascent particles of, 1187
—, thermodynamic properties of, influence of structural order on, 2671(N)
Polyethylene terephthalate, 4353
—, blends of polyarylate with, 1629
—, chloroprene rubber composites with, dynamic moduli of, 661
—, crystallization of, nucleation of, 853
—, flame-retardant, degradation and TGA of, 911
—, heat generation associated with drawing of, 219
—, high-speed spinning of, 2111
—, sorption and transport of benzene in, 1095
Poly(ethylene terephthalate) fibers, diffusion of dyes in, 1483
Poly(ethylene terephthalate) reactors, continuous, modeling of, 437(N)
—, polycondensation stage of, optimization of, 1045
Polyethylene trimesamide, reverse osmosis membrane from, chlorine-resistant, 3369
Poly(ethyl methacrylate), anomalous sorption in, 399
Poly(fluoroalkyl methacrylate)s, thermogravimetric studies of the depolymerization of, 4061
Polyfunctional monomers, vulcanization of natural rubber latex with, γ-radiation induced, 965
Poly(hexamethylene carbonate) glycol, poly(urethane ester), elastomers based on, thermostability of, 681
Poly(2-hydroxyethyl methacrylate), swelling behavior of, effect of low quantities of methacrylic acid and crosslinkers on, 1749
Polyimide, adhesion of, to silica, effect of silane-solution pH on, 2039

—, BDSDA/APB, synthesis and characterization of, 4037
Polyimide film, Kapton, photoinduced tension of, 2797
Polyimide polymers, phthalocyanine, heat resistant, 353
Polyimides, synthesis of some unusual, 891
Polyimide ultrafiltration membranes, asymmetric, 743
Polyisobutylene-based ionomers, sulfonated, melt rheology of, 3065
Polyisobutylene-based model elastomeric ionomers, 1943
Polyisoprene, tetrazoles as antioxidants for, 89
Poly(D,L-lactic acid), 4265
Poly(L-lactide) fibers, effect of secondary structure on properties of, 2829
Polymer-bonded networks of cellulose fibers, 175
Polymer-bound metals, as fire retardants, in PE–silicone blends, 3883
Polymer–concrete composites, 3027
Polymer–filler interactions, in alumina-filled PU foams, enhancement of, 1857
Polymer films, 3185
Polymeric glycols, mesogenic group-terminated, liquid crystalline behavior of, 547
Polymerization, of *N*-vinylcarbazole, 4461(N)
Polymerization conditions, effect of on structure–property relationship in segmented polyurethanes, 2695
Polymerization reactions, modeling of, 1215
Polymer peroxide, 4115
Polymer/piezoelectric ceramic composites, 611
Polymers, deposition of, on human hair, effect on wettability of, 1011
—, mechanochemical polymerization of acetylene on γ-alumina, 3445
—, waste, composite from natural fiber, mineral fillers and, 2405
Polymer surface reconstruction, by diffusion of organic functional groups, 4335
Polymethacrylamide, as additives to UF resins, to reduce HCHO emission, 45
Poly(methacryloyl chloride-co-methyl methacrylate), oligoamide graft copolymer from, 567
Poly(methyl acrylate-co-ethyl acrylate), IPNs based on PUs and, 2963
Poly(methyl acrylate)–polyurethane blends, IPNs based on, 629
Poly(3-methyl-3-buten-2-one), 4115
Polymethylene citra-itaconimides, polymerization of, 1611
Poly(methyl methacrylate), blends of poly(vinylidene fluoride) and, rheological behavior of, 2205
—, blends of PS and, rheological behavior of, 2205
—, compatibility of PS with, effect of polymer molecular weights on, 1531
—, composites with piezoelectric ceramics, 611
—, concentration profiles of additives in, 2271
—, energy dissipation during viscoelastic crack propagation in, microscopic approach to, 1537
—, photodegradation, of methyl salicylate in, 4161
—, prepared by emulsion polymerization, in presence of burnt mazote boiler deposit, 3687
—, prepared by emulsion polymerization in presence of Egyption delta titano magnetite ore, 3677
—, PS diblock copolymers with, surface studies on, 4237
Poly(methyl methacrylate-co-dimethylamino methacrylate), cinnamic or cinnamylidene group substituted, photochemistry of, 651
Poly(methyl methacrylate-co-methacryloyl chloride), oligoamide graft copolymer from, 567
Poly(methyl methacrylate-co-4-vinyl pyridine), cinnamic or cinnamylidene group substituted, photochemistry of, 651
Poly(methyl methacrylate) films photolytically degraded, service life of, 777
Poly(4-methyl pentene-1), dielectric and dynamic mechanical measurements, 3057
Poly(methyl vinyl ketone-co-4-vinylpyridine) membranes, for reverse osmosis, 1723
Poly(neopentyl glycol adipate), miscibility of chlorinated PP or vinyl acetate/vinyl chloride copolymers with, 1463(N)
Polyoxytetramethylene glycol, PU ionomers based on, 2467
Polypeptide blends, compatibility of, 4279
Poly(*p*-phenylene benzobisthiazole) fibers, force–temperature behavior of, 3915
Polyphenylene ether sulfideimide, properties of, 1027(N)
Poly(phenylene oxide), prepared by oxidative coupling of 2,6-dimethylphenol, and its sulfonation, 4017
—, sulfonated, thin film composite membranes, for waste water purification, 4029
Poly(1,4-phenylene terephthalamide), dielectric relaxation in, 1693
Poly(*p*-phenylene terephthalamide), *N*-alkylation of, 141
—, blends of ABS resin and, 2547
—, block copolymer with butadiene, use in PPTA–ABS resin blends, 2547
—, *N*-octadecylated, 141
Poly(*p*-phenylene terephthalamide) graft and block copolymers of polybutadiene, with, 2057
Poly(*m*-phenylenetrimesamide), reverse osmosis membrane from, chlorine-resistant, 3369
Polypropylene, acrylic- and methacrylic acid-grafted, electrokinetic properties of, 2989
—, bimodal crystalline orientation in, mechanism of formation, 4257
—, blends with poly(ethylene-co-propylene), annealing of, 75
—, chlorinated, miscibility of poly(neopentyl glycol adipate) and, 1463(N)
—, crystalline morphology of, 4377
—, crystallization of, in the blends of PP with SEBS, 1595
—, isotactic, composites of, dynamic mechanical properties of, 1523
—, isotactic, luminescence emission of, 2843
—, melt rheological properties of blends of SEBS and , 1079
—, rubber-modified, 4377
—, thermal oxidation of, 465
—, UV irradiated, biodegradability of, 2581
Polypropylenes, modified and unmodified, tensile experiments on, 3409
—, stabilizing additives for, 4421(N)
Polysiloxane cushions, chemiluminescence of, 4439(N)
Polystyrene, atactic, blends of carboxylated poly(2,6-dimethyl-1,4-phenylene oxide) and, thermal properties of, 2679(N)
—, blends of PMMA and, rheological behavior of, 2205
—, chemical modification of, 829
—, compatibility of PMMA with, effect of polymer molecular weights on, 1531
—, composites with piezoelectric ceramics, 611
—, controlled degradation of, 2561
—, crosslinked, grafting of propylene sulfide on, 2517
—, dye absorption on, 3651
—, iodinated, as negative EB resist, 223
—, PMMA diblock copolymers with, surface studies on, 4237
—, waste, synthesis of bis(2,4-diphenylbutyl) phthalate from, 3261
Polystyrene anhydride-substituted, cation exchange resins from sulfonated, 829
Polystyrene-based ion-exchange resins, effect of temperature on stability of, in aqueous media, 341
Poly(styrene-co-acrylonitrile), blends of PMMA with, protection of, γ-irradiated, 455
Poly(styrene-co-2-HEMA) latices, dye absorption on, 3651
—, surface charges on, 3651
Poly(styrene-co-vinyl-phenyl hexafluorodimethyl carbinol), compatibility with nylon 6,12, 4443(N)
Polystyrene GPC, 3013
Polystyrene/PE blends, properties of, 2117

Poly(styrene sulfonic acid), polyion complex containing, effects of, on water sorption, 2143
Polysulfide polymer, liquid elastomers from thiol-modified difunctional castor oil and, 607
Polysulfone, graphite-reinforced, effect of UV and electron radiations on, 237
—, sulfonated poly(phenylene oxide) thin film composite membranes containing, 4029
Poly(tetrafluoroethylene), annealing behavior of γ-irradiated, 2245(N)
Poly(tetramethylene oxide) soft segments, poly(ether esteramide)s based on, morphology of, 1141
—, poly(ether ester)s based on, morphology of, 1157
Poly(tetramethylene terephthalate) hard segments, poly(ether ester)s based on, morphology of, 1157
Poly(trimesoyl piperazine), reverse osmosis membrane from, chlorine-resistant, 3369
Polyurethane, accelerated degradation of, monitored by photoacoustic spectroscopy, 2443
Poly(urethane–butadiene), adhesive bonds between glass or metal substrates and, durability of, 3147
Polyurethane elastomers, thermoplastic, thermostability of, 681
Polyurethane foams, alumina-filled, polymer–filler interactions in, enhancement of, 1857
—, having reduced flammability, 577
Polyurethane ionomers, structure–properties relationships of, 2467
Polyurethane–polyacrylate systems, IPNs based on, 629
Polyurethane–poly(methyl acrylate-co-ethyl acrylate) semi-1-IPNs, 2963
Polyurethanes, based on lignin and its derivatives, 1831
—, carboxyl-containing, from dibenzyl-L-tartrate and diisocyanates, 977
—, castor oil-based, 1031
—, IPNs based on PVAc and, 2951
—, segmented, kinetics of phase separation in, 2529
—, segmented, structure–property relationship in, effect of polymerization conditions on, 2695
—, solid foam, low combustibility, 1701
Polyurethane strips, spontaneous peeling of, 3269
Polyurethane–urea elastomers, as working substances in rubber heat engines, 2857
Polyurethaneureas, oligobutadienediol-based, microphase state of, 1919
Poly(vinyl acetate), cellulose fibers impregnated with, mechanical properties of, 187
—, IPNs based on PUs and, 2951
Poly(vinyl alcohol), crosslinking of, by *N,N′*-(2-propyloximino)-4,4-′-methylenebis(phenylcarbamate), 2307
—, effect of, on methyl orange–poly(1-vinylimidazole) interaction, 3991
—, epoxy polymers modified by addition of, 515
—, permeability of deuterium and helium in, 261
Poly(vinyl alcohol) copolymer-bonded networks of cellulose fibers, properties of, 175
Poly(vinyl alcohol) membranes, diffusive permeability of solutes through, 533
Poly(vinyl alcohol) thin films, syndiotacticity-rich, in water, properties of, 4009
Poly(*N*-vinylamine), cinnamic or cinnamylidene group substituted, photochemistry of, 651
Poly(vinylbutyral), characterization of, by gel permeation chromatography, 803
Poly(*N*-vinylcarbazole) and *N*-vinylcarbazole HCHO copolymer, phosphorylated, cation exchange resins from, 3753
Poly(vinyl chloride), epoxy polymers modified by addition of, 515
—, ion exchange resins dispersed in, as piezodialysis membrane, 709(N)
—, migration of plasticizer in, ATR–IR study of, 2247(N)
—, suspension, structural heterogeneities in, 901
Poly(vinylidene fluoride), blends of PMMA and, rheological behavior of, 2205
Poly(4-vinyl pyridine), polyion complex containing, effects of, on water sorption, 2143
Poly(4-vinylpyridine-co-methyl methacrylate), cinnamic or cinnamylidene group substituted, photochemistry of, 651
Poly(4-vinylpyridine-co-methyl vinyl ketone) membranes, for reverse osmosis, 1723
Pore structure analysis of cotton celluloses, 3349
Porosimetry, Hg, study of porous polymeric sorbents using, 1617
Porous polymeric sorbents, based on *m*-phenylenediamine, 1617
Porous polymer matrix, immobilization of enzymes using, 2713
—, preparation of, from radiation-polymerized hydrophilic monomers, 2713
Post-polymerization, crosslinking agent, use of *N,N′*-(2-propyloximino)-4,4′-methylenebis(phenylcarbamate) as, 2307
—, in poly(butylene terephthalate) sheets, 2873
Postpolymerization crosslinking agent, use of *N,N′*-(2-propyloximino)-4,4′-methylenebis(phenylcarbamate) as, 2299
Potentials for poly(styrene-co-2-HEMA) latices, 3651
Potentiometry, study of Hg–Ag alloys on polyacrylamide films using, 795
PP, blends of SEBS and, tensile yield behavior of, effect of blending technique on, 3513
—, grafting of acrylic monomers onto, radiation-induced, solvent effect on, 3641
Precipitants, effects of, 4237
Precipitation of oligomeric crystals in PET films, surface, effect of coatings on, 4321
Processing characteristics of short fiber-reinforced styrene–butadiene composites, 1355
Profiles of temperature and state of cure developed within the rubber mass in injection molding process, calculation of, 955
Propylene, copolymer with ethylene, blends of PP with, annealing of, 75
—, polymerization of, initiated by milled metal oxides, 291
—, polymerization of, with $TiCl_3$–$AlEt_2Cl$–trilauryltrithiophosphite catalyst, 1287
Propylene–ethylene copolymer, molecular architecture of, modified Cole–Cole plot used in study of, 995
—, short-chain branched, Mark–Houwink equation for, 3763
Propylene sulfide, grafting of, onto crosslinked PS, 2517
*N,N′*-(2-propyloximino)-4,4′-methylenebis(phenylcarbamate), as "blocked" crosslinking agent, 2299, 2307
Protective effect, of the phenyl group, in γ-irradiated blends of PMMA poly(styrene-co-acrylonitrile), 455
Protein chromatograms, in SEC, broadening of, 3533
Proton-irradiated PET thin films, permeability coefficient of, 2785
PVC, accelerated degradation of, monitored by photoacoustic spectroscopy, 2431
—, bis(2,4-diphenylbutyl) phthalate as plasticizer for, 3261
—, conjugated polyene films prepared by dehydrochlorination of, 3171
—, flexible, adhesive bonds in, effect of branching in dialkyl phthalate plasticizers on, 383
—, reaction product with sodium thiophenate, thermal degradation of, 1735
—, solid, conjugated polyene films prepared by dehydrochlorination of, 3171
—, thermal degradation of, influence of tacticity on, 1735
PVC–acrylic terpolymer blends, weather-resistant sealants based on, 3421
PVC/acrylonitrile-20-graft polyblend–styrene–acrylonitrile blends, thermal stability of, 1297
PVC/CR-20gp-SVAAN blends, compatibility and thermal studies on, 1653
PVC/KM-365B blends, thermal stability of, 1297
PVC–liquid crystal composite membranes, membrane structure and permeation properties of, 3955

PVC model compounds, pyrolysis of, effects of Cu and Mo oxides in, 3783
Pyrazine-*N*-oxide groups, polymers containing, photocrosslinking of, 125
Pyrolysis, of PVC model compounds, effects of Cu and Mo oxides on, 3783
—, radiant flash, of biomass, using xenon flashtube, 2163
Pyrolysis–gas chromatography, in study of nylon 6,6 degradation, 1133
Pyrrolidone derivatives, *N*-methylol system based on, HCHO release from, 3569

Quaternization, of amino-group containing PU, ionomers prepared by, 2467
—, of poly(4-vinylpyridine-co-methyl vinyl ketone) membranes, flux improvement by, 1723
Quaternized poly(1-vinylimidazole), 3991

Radiant flash pyrolysis, of biomass using a xenon flashtube, 2163
Radiation, γ-, effect of, on poly(*p*-dioxanone) fibers, 1865
—, γ-, grafting of methacrylic acid onto PE films induced by, 1041
Radiation-grafted polymers for biomaterial applications, 2645
Radiation-induced graft copolymerization of mixtures of styrene and acrylamide onto cellulose acetate, 1559
Radiation-induced grafting, of EMA–HEMA mixtures, on LDPE films, 2645
—, of methyl methacrylate, on natural rubber latex, 1515
—, of poly(acrylic acid), to polyethylene, 3795
Radiation-induced grafting of acrylic monomers onto PP, solvent effect on, 3641
Radiation ionizing, effects of, on tetrafluoroethylene copolymers, 1335
Radiation polymerization of mixtures of styrene and acrylonitrile impregnated into mortars, 3027
Radiation-polymerized hydrophilic monomers, porous polymer matrices prepared from, 2713
Radiation vulcanization, γ-, of natural rubber latex with polyfunctional monomers, 965
Raman spectroscopy, laser, of urea–HCHO resins and model compounds, 2749
γ-Ray initiated polymerization of fluoroalkyl methacrylates, 4061
Rayon fiber, composites of rubber and, carbon black as silica substitute in, 1911(N)
Reactor, polymerization, batch, sensitivity analysis of, 2195
—, wiped film, orthogonal collocation technique, for analysis of, 3217
Reactors, nylon 6, with end-point constraints, optimization of, 2177
Reclaimed PE, shear modification and reprocessing of, 2501
Recovery behavior, of heat-set PET, 4219
Redox reaction-initiated grafting, of methyl methacrylate, onto wood pulp, by Fe(II) and $H_2O_2$, 2921
Relaxation model for property changes during cure reaction of silicone elastomers, 2331
α-Relaxation process, 3057
Relaxation–time spectra, Alfrey approximation of, for heat-set PET, 4203
Reprocessing and shear modification of polyethylene, 2501
Resilience, of cotton celluloses, 3349
Resins, anion-exchange, PS-based, effect of temperature on stability of, in aqueous media, 341
—, cation-exchange, PS-based, effect of temperature on stability of, in aqueous media, 341
—, ion-exchange, effect of temperature on stability of, in aqueous media, 341
Resins containing extractants, morphology of, 3825
Resist, negative EB, iodinated PS as, 223
Resistivity behavior, of carbon black-filled silicone rubber in cyclic loading experiments, 3937
Resistivity behavior of filled electrically conductive crosslinked polyethylene, 1639
Resistivity of polymer-grafted carbon blacks, 251
Resists, positive, electron beam curing and development of, 1427
Resorbable materials, from poly(L-lactide), 2829
Responsive membranes, to amino compounds, controlled release of organic substances using, 211
Retarder, of methyl acrylate polymerization, 2-mercaptobenzothiazole as, 4199
Reverse osmosis membrane, chlorine-resistant, 3359, 3369
—, interpolymer anionic composite, rejection of phenolic derivatives in aqueous solution by, 2929
Reverse osmosis membranes, poly(methyl vinyl ketone-co-4-vinylpyridine), 1723
—, sulfonated poly(phenylene oxide)–polysulfone thin film composite as, 4029
Reverse osmosis-membranes from modified cellulose acetate, 1743
Reynolds numbers, in emulsion polymerizations, 3925
Rheogram approach, to low-shear-rate region, upgrading melt flow index to, 1581
Rheological behavior, of epoxy acrylate prepolymer during UV curing, 4071
—, of polymer blends, 2205
Rheological behavior and processability of polypropylene, effects of coupling agent on the, 2599
Rheological properties, of alkyl-substituted ammonium salts of sulfonated PS ionomers, 2719
—, of HDPE/PS blends, 2117
—, of IPNs based on PUs and PVAc, 2951
—, melt, of PP/SEBS blends, 1079
—, of photosensitive polymers, 57
—, of polymer solutions, 153
Rheology, chemo-, of vinyl ester resins, 1879
Rheometer, cone- and plate, study of chemorheology of vinyl ester resins using, 1879
—, for measuring the dynamic viscoelastic properties, of photosensitive polymers, 57
—, oscillating plate, study of rheological behavior of epoxy acrylate prepolymer during UV curing, 4071
Rheovibron, study of SAN–poly(ε-caprolactone) blends using, 1797
—, study of SAN–poly(ε-caprolactone) using, 1781
—, study of short fiber–CR composite moduli using, 661
Rheovibron viscometer, dynamic mechanical properties of polyester yarns studied using, 933
Rigidity, of fibers, effect of hollow core on, 2537
RIM process, effect of processing conditions on, 1959
Ring-opening polymerization of D,L-lactide, 4265
Room temperature curing elastomer, from thiol-modified difunctional castor oil, 607
Rotational speed, effect of, on emulsion polymerizations, 3925
Rubber, butadiene, antioxidants as photostabilizers for, 2493
—, natural, composites of short fibers and, carbon black as silica substitute in, 1911(N)
—, natural, latex, epoxidation of, 1661
—, natural, latex, grafting of MMA onto, radiation-induced, 1515
Rubber base, for V-belts, network changes in, during simulated service testing, 427(N)
Rubber composites, polychloroprene, short silk fiber-reinforced, 3097
Rubber heat engines, urea–polyurethane elastomers as working substances in, 2857
Rubber injection molding process, temperature and cure state profiles in, 955
Rubber latex, natural, vulcanization of, with polyfunctional monomers, γ-radiation induced, 965

Rubber-modified epoxy resins containing high functionality acrylic elastomers, 1381
Rubber-modified PP, tensile experiments on, 3409
Rubber oxidation, study of, by thermoanalysis, 2627
Rubbers, antioxidants for, tetrazoles as, 89
Rupture, creep, thermodynamics of, 1547

Salt-splitting capacity, of phosphorylated *N*-vinylcarbazole polymers and copolymers, 3753
SAN, blends of poly(ϵ-caprolactone) with, compatibility of, 1781, 1797
SAN copolymers, blends of PC with, 3131
SAXS, study of biaxially drawn UHMW-PE microstructure using, 2347
—, study of microphase states of polyurethaneureas using, 1919
—, study of proton-irradiated PET thin films using, 2785
Scattering, light, study of suspension PVC morphology using, 901
Schottky barriers, use of *trans*-polyacetylene-containing sandwich cells as, 619
SCS parameter, of *N,N'*-(2-propyloximino)-4,4'-methylenebis(phenylcarbamate), 2299, 2307
Sealed jar test, AATCC, for formaldehyde release from fabrics, 3569
SEBS, blends of PP and, tensile yield behavior of, effect of blending technique on, 3513
—, blends of PP with, tensile properties of, effect of PP crystallization on, 1595
—, melt rheological properties of blends of PP and, 1079
SEC, study of polyelectrolytes in DMF using, 2819
SEC analyses, of molecular weight distributions, of polyethylenes, accuracy of, 1071
SEC–LALLS, 4353
Secondary structure, effect on properties and hydrolyzability of poly(L-lactide) fibers, 2829
Segmented block copolymers, structural properties of, 1141, 1157
SEM, study of asymmetric polyimide ultrafiltration membranes using, 743
—, study of blends of poly(*p*-phenylene terephthalamide) and ABS resin, 2547
—, study of castor oil-based polyurethanes using, 1031
—, study of epoxy polymer morphology using, 515
—, study of LDPE films grafted with EMA–HEMA mixtures, 2645
—, study of morphology of vinyl polymers prepared in the presence of uranium selective extractants using, 3825
—, study of mortar, impregnated with radiation-polymerized styrene, 2069
—, study of poly(*p*-dioxanone) fibers degradation using, 1865
—, study of polymerization of hexamethyldisiloxane by plasma, on activated charcoal, 2617
—, study of porous polymeric sorbents using, 1617
—, study of PP–SEBS blends using, 3513
—, study of properties of HDPE/PS blends using, 2117
—, study of radiation-induced graft copolymerization of mixtures of acrylamide and styrene onto cellulose acetate using, 1559
—, study of rubber-modified epoxy resins containing high functionality acrylic elastomers, 1381
—, study of short fiber-reinforced styrene–butadiene composites using, 1355
—, study of tricomponent dry bonding system for short fiber–rubber composites using, 1911(N)
—, study of weather-resistant sealants based on PVC and acrylic terpolymer using, 3421
Semicrystalline polymers, surfaces of, orientation variations near, 1985
Semipermeable membranes, diffusion through, 3991
SEM studies, of short silk fiber-reinforced polychloroprene rubber composites, 3097
Sensitivity analysis, of a batch polymerization reactor, 2195
Service life, of photolytically degraded PMMA films, 777
Shear, steady, study of TGDDM–DDS curing systems using, 2083
Shear modification of polyethylene, 2501
Shear rate, low-region, upgrading melt flow index to rheogram approach to, 1581
Short-chain branched polyolefins, GPC calibration for, 3763
Side chain dispersion, 4279
Silane coupling agents, effects of, on rheological behavior of PP, 2599
Silane pretreatment, poly(urethane–butadiene), effect of, on durability of adhesive bonds and a PB–PU, 3147
Silane solution, pH of, effect of, on adhesion of polyimide to silica, 2039
Silanol, catalyst containing aluminum complex and curing of epoxy resins using, 269
Silica, adhesion of polyimide to, effect of silane-solution pH on, 2039
—, mechanochemical polymerization of acetylene γ-alumina and other materials, 3445
—, reinforcing, precipitated into elastomeric network, particle sizes of, 3209(N)
Silica–alumina catalyst, controlled degradation of PS using, 2561
Silicone elastomers, cure reactions of, 2331
—, vulcanized by hydrosilation reaction, electric conductivity of, 2665
Silicone–PE blends, polymer-bound metals as fire retardants in, 3883
Silicone polymers, photosensitive, polymer waveguides prepared from, 2231
Silicone rubber, carbon black-filled, resistivity, cyclic loading and stress relaxation behavior of, 3937
—, electrical properties of, 1951
Silicone rubbers, interaction mechanisms in, 1929
Silk fiber-reinforced polychloroprene rubber composites, using short silk fibers, 3097
Silk fibers, grafting of methyl methacrylate onto, $Mn(acac)_3$-initiated, 3283
Siloxane-like films, preparation of, by glow discharge polymerization, 3595
Size exclusion chromatography, 3863
Sm(III), complexation of, by poly(acrylic acid) grafted polyethylene, 3795
Smoke retardation, in PVC, by Cu and Mo oxides, 3783
$SO_2$–diethylamine–DMSO, as solvent for benzylation of cellulose, 2097
Solar photovoltaic devices, methyl salicylate-containing poly(methyl methacrylate) lenses for use in, 4161
Solid, amorphous, transformation of liquid to, in styrene polymerization, 2017
Solubility coefficients, of vapors in polymer membranes, 3663
Solubility parameters, for lignin derivatives, 1815
Solution, polymer, rheological properties of, 153
Solution copolymerization, CSTRs in series for, analysis of, 3999
Solution temperature, critical, lower, for SAN–poly(ϵ-caprolactone) blends, 1797
—, critical, lower for SAN–poly(ϵ-caprolactone) blends, 1781
Solvent–cellulose interaction, effect of, on mechanical properties of bonded fibrous structures, 187
Solvent diffusion technique, study of additive concentration profiles using, 2271
Solvent-induced crystallization, of PET films, dimensional changes during, 3197
Solventless processes, 4421(N)
θ solvents for polychloroprene, rheological properties of solutions in, 153
Sonic velocity, longitudinal, study of PU–polyacrylate-based IPNs using, 2963
Sorbents, porous polymeric, based on *m*-phenylenediamine condensates, 1617
Sorption, anomalous, in poly(ethyl methacrylate), 399

—, anomalous, of dyes on polyester fibers, 1483
—, of water, in epoxy resins, 2453
Sorption and transport of benzene in PET, 1095
Sorption kinetics, of polystyrene–*n*-hexane systems, effect of thermal history on, 4145
Spectroscopy, UV–visible, study of thermal degradation of PVC using, 1735
Spherical beads, of maleic anhydride–styrene–DVB copolymers, preparation and metal sorption of derivatives of, 2851
Spherulite size, of isotactic polypropylene, 4183
Spin–echo NMR, study of self-diffusion in cellulose gels using, 823
Spinning, of poly(ethylene terephthalate), high-speed, 2111
Stability, to radiation, of cellulose acetate membranes, phenyl isocyanate-treated, 1743
—, thermal, of cellulose acetate membranes, phenyl isocyanate-treated, 1743
—, thermal, of PVC/chlororubber-20-graft polyblend–styrene–acrylonitrile blends, 1297
—, thermal, of PVC/CR-20gp-SVAAN blends, 1653
Stabilization, thermal, of acrylic fibers, volume contraction during, 1319
Stabilizing additives, 4421(N)
Starch–borate complexes, for EPTC encapsulation, 67
Steel fibers, force–temperature behavior of, 3915
Stirring, effect of, on cellulose graft copolymerization, 4247
Stochastic model for predicting the service life of photolytically degraded PMMA films, 777
Streaming potential method, study of acrylic- and methacrylic acid-grafted PP electrokinetic properties using, 2989
Strength of epoxy resins, amine-cured, additives for increasing, 1403
Stress, critical, for crystallization in the threadline during high-speed spinning of poly(ethylene terephthalate), 2111
—, yield, of dyed nylon monofilament, effect of acid dye MW on, 3241
Stress effects, concentration-induced, in diffusion of vapors through polymer membranes, 731
Stresses, curing, in epoxy polymer, 2155
Stress-relaxation and recovery in epoxy polymers, birefringence during, 1241
Stress-relaxation behavior, of carbon black-filled silicone rubber, 3937
—, of heat-set PET, 4203
Stress–strain testing, study of polyurethane films based on lignin and its derivatives using, 1831
Structural differences in photochemically and chemically prepared networks, characterized by IGPC, 4309
Structural investigations of segmented block copolymers, 1141, 1157
Structural order, influence of, on thermodynamic properties for three different polyethylenes, 2671(N)
Structure–property relationship, in heat-set PET, 3727
Structure–property relationship in heat-set poly(ethylene terephthalate) fibers, 3115
Structure–property relationship in polyester- and polyether-based MDI–BD segmented polyurethanes, 2695
Structure–property relationships, in heat-set PET, 4203, 4219
Structure–property relationships of anionic exchange membranes for Fe/Cr redox storage batteries, 2317
Styrene, block copolymers containing, melt rheological properties of blends of PP and, 1079
—, chlororubber-20-graft polyblend–acrylonitrile–, PVC blends with, thermal stability of, 1297
—, copolymerization of elemental sulfur with, 1225
—, copolymer of butyl acrylate and, determination of absolute molecular weight of, 925
—, copolymer of 2-HEMA with, surface characterization of latex of, 3651
—, copolymers of AN with, miscibility of MMA copolymers with, 99
—, copolymers of styrene–sulfonic acid with, miscibility of, with urethane elastomers, 755
—, grafting of mixtures of acrylamide and, onto cellulose acetate, radiation-induced, 1559
—, α-methyl, copolymers of AN with, miscibility of MMA copolymers with, 99
—, mixtures with acrylonitrile, impregnated in mortars, radiation polymerization of, 3027
—, oligocopolymers of allyl alcohol with, binary mixtures of aliphatic polyesters with, phase behavior of, 3837
—, polymerization of, time to vitrify for, 2017
—, radiation-polymerized, mortar impregnated with, fracture morphology of, 2069
—, unsaturated polyesters based on 1,3-(dicarboxymethoxy)benzene cured with, 3855
Styrene–acrylate copolymer-bonded networks of cellulose fibers, properties of, 175
Styrene-based ionomers, ion clustering in, 1249
Styrene–butadiene composites, fiber-reinforced, 1355
Styrene–divinylbenzene copolymers, influence of the diluent on network porosity, 23
—, phosphorylated macroreticular chelating resins from, 2045
Styrene–DVB copolymers, chloromethylated, phosphorylated macroreticular chelating resins from, 2045
Styrene sulfonic acid, copolymers of styrene with, miscibility of, with urethane elastomers, 755
2-Sulfoethylmethacrylate, sodium salt of, copolymers of acrylamide with, 713
Sulfo groups, ion exchanger containing carboxyl and, 13
Sulfonated monomers, copolymers of acrylamide with, water-soluble, 713
Sulfonated polyisobutylene-based ionomers, melt rheology of, 3065
Sulfonated PS ionomers, control of ionic interactions in, by alkyl-substituted ammonium counterions, 2719
Sulfonated *N*-vinylcarbazole–HCHO copolymer, cation exchange resin from, 1999
Sulfonation, of AN or MMA containing copolymers, bifunctional cation exchangers prepared by, 13
—, of poly(2,6-dimethylphenylene)oxide, 4017
—, of poly(phenylene oxide), 4017
Sulfonic acid resins from anhydride substituted polystyrene, 829
Sulfur, elemental, copolymerization of styrene with, 1225
Supported adhesives, fiber orientation effects in, 4415(N)
Supports, metallophosphate, for Ziegler–Natta catalysts for ethylene polymerization, 3491
Surface area, of suspension PVC, 901
Surface changes, 4335
Surface characterization of intact fibers by inverse gas chromatography, 3965
Surface characterization of poly(styrene-co-2-hydroxyethyl methacrylate) latex, 3651
Surface photografting of hydrophilic vinyl monomers onto diethyldithiocarbamated polydimethylsiloxane, 877
Surfaces, polymer, photomodification of, 2941(N)
—, of semicrystalline polymers, orientation variations near, 1985
Surface studies, of PS–PMMA diblock copolymers precipitated by different precipitants, 4237
Surfactants, deposition of, on human hair, effect on wettability of, 1011
Suspension polymerization, of vinyl chloride, 901
Suspensions, viscoelastic, tubeless syphon flow of, 1467(N)
Swelling, anisotropic effect of on short fiber-reinforced styrene–butadiene composites, 1355
—, kinetic theory of, for polystyrene–*n*-hexane systems, 4145
—, of polyurethanes based on lignin and its derivatives, 1831

Swelling behavior of poly(2-hydroxyethyl methacrylate), effects of low levels of methacrylic acid on, 1749
Swelling of cotton fibers in aqueous ethylenediamine solutions, 837
Swelling of cotton fibers in ethylenediamine–morpholine mixtures, 2421
Syndiotacticity-rich poly(vinyl alcohol) thin films, in water, properties of, 4009
Syndiotactic 1,2-polybutadiene, carbon fibers prepared from, 2763
Synergism during graft copolymerization of binary mixtures of vinyl monomers onto polyester fibers, 1843
Syphon flow, tubeless, of viscoelastic suspensions, 1467(N)

$T_g$, of diallyl oxalate prepolymer, 1761
—, of epoxidized natural rubber latices, 1661
—, of epoxy polymers, prediction of, effect of test frequency and cure on, 1471
—, measurement of, in urethane elastomers, using thermomechanical methods, 1203
—, of PU ionomers, 2467
Tacticity, influence of, on the thermal degradation of PVC, 1735
Taft's number, effect of, on rejection of phenolic derivatives by interpolymer anionic composite RO membrane, 2929
Takayanagi model, for coupling between amorphous and crystalline regions in heat-set PET, 3115
Tartaric acid, L-, dibenzyl ester, carboxyl-containing polyesters and polyurethanes prepared from, 977
Tearing energy concept, to determine the flaw growth law constants in elastomeric biomaterials, 3041
Tear strength, of paper sheets prepared from carbamoylethylated wood pulp, 3901
TEM, study of blends of poly(*p*-phenylene terephthalamide) and ABS resin, 2547
—, study of precipitated silica reinforced polydimethylsiloxane using, 3209(N)
Temperature profile, in rubber injection molding process, 955
Tensile experiments on modified and unmodified PPs, 3409
Tensile tests, of rubber-modified epoxy resins containing high functionality acrylic elastomers, 1381
Terephthaloyl–isophthaloyl–bisphenol-A copolyesters, blends of PET with, 1629
Tetrad distribution of the PDT/FT aromatic copolyterephthalate, 3587
Tetrafluoroethylene copolymers, effects of ionization radiation on, 1335
(Tetraglycidyl diamino diphenyl) methane, epoxy systems based on, thermokinetics and chemorheology of cure of, 2083
Tetraglycidyl-4,4′-diaminodiphenylmethane, epoxy resins cured using and/or $BF_3$–MEA or fluoroboric acid, 3713
Tetraglycidyl-4,4′-diaminophenylmethane, epoxy formulations based on, cure kinetics of, 1449
—, epoxy resins from, interactions of $H_2O$ and radiation with, 311
Tetramethoxysilane, glow discharge polymerization of, 3595
Tetramethyldisiloxane, glow discharge polymerization of, 3595
Tetramethylsilane, glow discharge polymerization of, 1369, 3595
Tetrazoles, as rubber chemicals, 89
$T_g$, of PET filaments, in necking region, 4395(N)
TGA, of bis(2,4-diphenylbutyl) phthalate, 3261
—, study of addition polyimides prepared from bis(*m*-maleimidophenyl) methylphosphine oxide and diamines using, 2807
—, study of *P*-containing polyamides based on 1[(dialkoxyphosphinyl)methyl]diaminobenzenes using, 941
—, study of phthalocyanine polymers using, 353
—, study of thermal oxidative degradation of flame-retardant polyesters using, 911
—, study of thermal stability of ureas using, 3431
TGA study, of 1-[di(2-chloroethoxyphosphinyl)-methyl]diaminobenzenes, cured epoxy resins, 197
Thermal analysis, of PVC–liquid crystal composite membranes, 3955
Thermal and mechanical behavior of polycarbonate–poly(ethylene terephthalate) blends, 3231
Thermal behavior, of diallyl oxalate prepolymer, 1761
Thermal conductivity, of first vapor through polymer membrane in equilibrium with second vapor, 3663
Thermal degradation, of diallyl oxalate prepolymer, 1761
—, of high $T_g$ epoxy systems, TTT diagrams for, 3307
—, of polyester thermosets prepared using dibromoneopentyl glycol, 763
—, of PS, 2561
—, of PU, monitored by photoacoustic spectroscopy, 2443
—, of PVC, monitored by photoacoustic spectroscopy, 2431
Thermal histories, effect of, on Case II sorption kinetics of polystyrene–*n*-hexane systems, 4145
Thermal insulating material, composite from mineral fillers, natural fibers and waste polymers as, 2405
Thermal oxidation, of polypropylene, in the temperature range of 120–280°C, 465
Thermal oxidative degradation of flame-retardant polyesters, TGA study of, 911
Thermal properties, of alkyl-substituted ammonium salts of sulfonated PS ionomers, 2719
Thermal properties of blends of carboxylated poly(2,6-dimethyl-1,4-phenylene oxide) and atactic PS, 2679(N)
Thermal stability, fractionation and chemical modification of chlorinated rubbers, 4081
—, of ureas, effect of structure on, 3431
—, of *N*-vinylcarbazole polymers and copolymers, unmodified, sulfonated or phosphorylated, 3753
Thermal stabilization, of acrylic fibers, volume contraction during, 1319
Thermoanalysis, study of rubber oxidation by, 2627
Thermodynamic properties, of PE, influence of structural order on, 2671(N)
Thermodynamics of creep rupture, 1547
Thermoelectric switching phenomenon, in electrically conductive PEs, 1639
Thermogravimetric studies of the depolymerization of poly(fluoroalkyl methacrylate)s, 4061
Thermokinetics and chemorheology of the cure, 2083
Thermokinetics of cure of tetraglycidyl diamino diphenyl methane–diamino diphenyl sulfone epoxy systems, 2083
Thermomechanical methods, measurement of $T_g$ in urethane elastomers using, 1203
Thermooxidative aging, effects of, on the fatigue behavior of a structural adhesive, 3499
Thermoplastic polyurethane elastomers—thermostability in relation to composition, 681
Thermosets, polyester, thermal degradation of, 763
Thin epoxy films, a method for casting, 2677(N)
Thiocyanato group-bearing polymers, photoreactions of, 2941(N)
Thioetherglycidyl resins, prepared from isomeric di(mercaptomethyl)xylenes and epichlorohydrin, 4297
Thioglycolic acid, reaction product with difunctional castor oil, and room temperature curing elastomer from, 607
Thiol modification, of difunctional castor oil, and its utility as room temperature setting elastomeric material, 607
Thiophenol, sodium salt, reaction product with PVC, thermal degradation of, 1735
$TiCl_3$, catalyst containing trilauryltrithiophosphite and, polymerization of propylene using, 1287

Time-temperature–transformation (TTT) diagrams of high $T_g$ epoxy systems, 3307
Titanate coupling agents, effects of, on rheological behavior of PP, 2599
TLC, hydroxyl-terminated polybutadienes studied using, 3741
TMA, study of castor oil-based polyurethanes using, 1031
—, study of poly(*p*-phenylene terephthalamide)–PB block and graft copolymers using, 2057
$T_g$ of styrene–sulfur copolymers determined using DSC, 1225
Torsional pendulum, determination of $T_g$ of epoxy polymers using, 1471
Transesterification, continuous, in PET reactor, modeling of, 437(N)
—, in PET–polyarylate blends, 1629
Transfer agents, polymeric, PS grafted with propylene sulfide as, 2517
Transfer processes in plasticized PVC, 3391
Transformation of liquid to amorphous solid, 2017
Transparent glassy polymers, additives in, 2271
Transport, of benzene, in PET, 1095
—, in cellulose gels, studied using an NMR spin-echo technique, 823
Transport properties, of coextruded films, 2359
—, of gelatin–dextran films, 555
—, of thin film composite membranes, 4029
Transport properties of thin film composite membranes, 4017
Tri-*O*-allyl cellulose ethers, nonaqueous cellulose solvent used in preparation of, 3873
Tri-*O*-benzylcellulose, preparation of, by the use of nonaqueous cellulose solvents, 2097
Tri-*O*-2-butenyl cellulose ethers, nonaqueous cellulose solvent used in preparation of, 3873
Tricomponent dry bonding system for short fiber–rubber composites, 1911(N)
Trilauryltrithiophosphite, catalyst containing, polymerization of propylene using, 1287
Tri(methylolpropane)–trimethacrylate, copolymer of MMA with, $CaO–SiO_2–H_2O$ macromolecule containing, 2889
Trimethylvinylsilane, glow discharge polymerization of, 1369
Trinitrophenylated wool fibers, grafting of MMA onto, initiated by V(IV) complex, 2007
Triphenyltin methacrylate, copolymerization of, with some acrylic and methacrylic acid esters, 509
Tri-*O*-substituted cellulose ethers, unsaturated and saturated, 3873
Tubeless syphon flow of viscoelastic suspensions, 1467(N)
Tung oil, polymerization of, by reaction with phenols, 2735
—, reactions of phenols with, 1063
12-Tungstosilicic acid, hydrolysis of dextrin in presence of, 3087
Two-stage cured phenolics, improvement of performance of, 2395

Ultrafiltration membranes, asymmetric polyimide, 743
Ultrafine particles, PP composites filled with, dynamic mechanical properties of, 1523
Ultrahigh molecular weight PE, biaxially drawn, microstructure of, 2347
Ultrasonic and dielectric absorption in some linear polyamides, 2635
Unperturbed parameter, $K_\theta$ by gel permeation chromatography and viscometry, 433(N)
Unsaturated polyesters, based on 1,3-(dicarboxymethoxy)benzene, 3855
Uranium, macroreticular chelating resins for, 2045
Uranium selective extractants, vinyl polymers prepared in the presence of, morphology of, 3825
Urea-formaldehyde resins, 3863
Urea–formaldehyde resins of low formaldehyde emission, 45
Urea–HCHO resins and model compounds, laser Raman spectral analysis of, 2749
Urea–polyurethane elastomers, as working substances in rubber heat engines, 2857
Urea structure, correlation of, with thermal stability in model compounds, 3431
Urethane acrylate prepolymers, rheological properties of curing, 57
Urethane elastomers, cast, prepared from poly(ε-caprolactone)s, 2261
—, microphase separation in, 1203
—, miscibility of, with styrene–styrene sulfonic acid copolymers, 755
UV, degradation of PU by, monitored by photoacoustic spectroscopy, 2443
UV curing, of acrylated epoxy prepolymer, rheological behavior of, 4071
UV-initiated crosslinking of photosensitive silicone polymers, 2231
UV-initiated polymerization of fluoroalkyl methacrylates, 4061
UV irradiation, of wood surfaces study of, using ESCA, 2777
UV radiation, effect of, on graphite-reinforced polysulfone and epoxy resins, 237
—, photosensitivity of chloroacetylated PB rubbers to, 481
—, polyolefin films exposed to, biodegradability of, 2581
UV screening agent, in poly(methyl methacrylate) lenses, methyl salicylate as, 4161
UV spectra, study of photochemical degradation of chemically modified wood using, 105
—, study of UV-irradiated fluorene-based polyarylates, 35
UV-visible absorption spectrophotometry, in study of nylon 6,6 degradation, 1125

Vanadyl acetylacetonate complex, grafting of MMA onto wool fibers initiated by, 2007
Vapors, permeability of, through polymer membranes, 3663
Vibroscope, study of fiber rigidity using, 2537
Vinyl acetate–ethylene copolymers, study of, using GPC high-temperature coupled with continuous viscometer, 1569
Vinyl acetate/vinyl chloride copolymers, miscibility of poly(neopentyl glycol adipate) and, 1463(N)
*N*-Vinylcarbazole, copolymer with HCHO, sulfonated, cation exchange resin from, 1999
—, reaction of furfural and, crosslinked polymer from, 1183
*N*-Vinylcarbazole reaction of formalin and, crosslinked polymer from, 1183
Vinyl chloride, suspension polymerization of, 901
Vinyl chloride/vinyl acetate copolymers, miscibility of poly(neopentyl glycol adipate) and, 1463(N)
Vinyl ester resins, chemorheology and curing kinetics of, 1879
1-Vinylimidazole, photoinitiated polymerization of, 1345
Vinyl monomers, grafting of binary mixtures of, onto polyester fibers, synergism during, 1843
—, hydrophilic, grafting of, onto diethyldithiocarbamated polydimethylsiloxane, 877
—, polymers of, prepared in the presence of uranium selective extractants, morphology of, 3825
Vinyl resins, migration of plasticizer in, 2247(N)
Vinyl trifluoroacetate, syndiotacticity-rich poly(vinyl alcohol) thin films prepared from, in water, properties of, 4009
Vinyltrimethylsilane, glow discharge polymerization of, 1369
Viscoelastic crack propagation, energy dissipation during, microscopic approach to, 1537
Viscoelastic properties, of short-fiber nylon 6 or PET composites with CR, 4107
Viscoelastic properties of elastomers, molecular architecture determined from, 995
Viscoelastic suspensions, tubeless syphon flow of, 1467(N)

Viscometer, capillary, four-bulb shear dilution, study of water-soluble copolymers using, 713
—, cone & plate, study of unsaturated polyester using, 447
—, continuous, high-temperature coupling of GPC with, study of EVA copolymers using, 1569
—, rheovibron dynamic mechanical properties of polyester yarns, studied using, 933
—, rotating, study of unsaturated polyester using, 447
Viscometry, characterization of polyvinylbutyral using, 803
—, study of suspension PVC morphology using, 901
Viscometry chain dimension, unperturbed, determination of, using GPC and, 433(N)
Viscosity, absolute, of poly(cyclohexyl methacrylate), temperature dependence of, 4427(N)
—, of an unsaturated polyester, 447
—, dilute solution, of water-soluble copolymers, 713
—, intrinsic, of poly(butylene terephthalate), in phenol-TCE, 2873
—, melt, of polyphenylene ether sulfideimide, effect of molecular weight on, 1027(N)
—, oscillatory, study of TGDDM–DDS curing systems using, 2083
Viscosity–molecular weight relationships, 4353
Viscosity–temperature relationships for dilute solutions of poly(cyclohexyl methacrylate) in MIBK, 4427(N)
Visible light absorption spectrometry, study of thermally aged nylon 6,6 degradation using, 1125
Vitrification, time to, for styrene polymerization, 2017
Voltaic properties, photo-, of *trans*-polyacetylene-containing sandwich cells, 619
Volume contraction during the thermal stabilization of acrylic fibers, 1319
VPO, study of bisphthalonitrile polymers using, 3339
—, study of polymers prepared using milled metallic oxide initiators, 291
—, styrene–sulfur copolymers studied using, 1225
Vulcanization, of silicone elastomers, by hydrosilation reaction, 2665

Waste water purification, sulfonated poly(phenylene oxide) thin film composite membranes, 4029
Waste waters, metal-bearing, flocculation of, using cellulose and its graft copolymers, 1903
Water, diffusion of, into epoxy matrices, Monte Carlo simulation of, 2453
Water absorption isotherms for cured bisphenol A type epoxy resins, 2021
Water retention value, of paper sheets prepared from carbamoylethylated wood pulp, 3901
Water soluble monomers, graft copolymers of cellulose and, flocculation of metal-bearing waste waters using, 1903
Water-soluble nonionic polymers, adsorption of, onto cellulosic fibers, 1675
Water-soluble polymers, 713
Water sorption, on polymer alloys, effects of complexation on, 2143
Waveguides, polymer, prepared from photosensitive silicone polymers, 2231
WAX D, study of biaxially drawn UHMW-PE microstructure using, 2347
WAXS, study of properties of HDPE/PS blends using, 2117
WAXS studies, of poly(*p*-phenylene terephthalamide), *N*-octadecylated, 141
Weathering, of PE films, use of photoacoustic spectroscopy in study of, 1491
—, of wood surfaces, study of, using ESCA, 2777
Weathering degradation, of PU, monitored by photoacoustic spectroscopy, 2443
Weather-resistant sealants based on PVC and acrylic terpolymer, 3421
Wettability, of acrylic grafted PP, 3641
—, of glow discharge-initiated grafted acrylic acid–PET, 3547
—, of human hair, surface, 1011
Wiechart model, for dynamic mechanical properties of ferrite-filled thermoplastic elastomers, 4123
Wiped film reactors, analysis of, using the orthogonal collocation technique, 3217
Wire, enameled, crazing test of, effect of electrical field on, 1309
WLF equation, for IPNs based on PU–PVAc systems, 2951
—, use in hybrid model for mechanical spectra elastomers, 413
Wood, chemically modified, photochemical degradation of, 105
Wood–flour-filled phenolics, two-stage, cured, improvement of performance of, 2395
Wood-products adhesives, from mangrove bark, 1415
Wood pulp, grafting of methyl methacrylate, onto, 2921
Wood surfaces, oxidized, study of, using ESCA, 2777
Wool fibers, grafting of MMA onto, V(IV) complex-initiated, 2007

Xanthate process, grafting of acrylic and methacrylic monomers onto cellulose by, 4247
Xenon flashtube, radiant flash pyrolysis of biomass using, 2163
XPS, study of polyelectrolyte complexes using, 2143
X-ray, analysis of Ag–Hg alloy films on polymer substrates, 3813
—, dispersive, study of epoxy polymer morphology using, 515
—, study of enzymatic hydrolyzed cellulosic materials using, 3329
X-ray analysis, study of Hg–Ag alloys on polyacrylamide films using, 795
—, study of suspension PVC morphology using, 901
X-ray crystallinity index, swelling of cotton fibers in EDA–morpholine mixtures studied using, 2421
X-ray diffraction, 4175
—, crystallinity in heat-set PET fibers studied using, 3115
—, study of polyelectrolyte complexes using, 2143
—, study of PP crystallization in PP/SEBS blends using, 1595
—, study of structure–property relationship in heat-set PET using, 3727
—, study of swelling of, cotton fibers in aqueous ethylenediamine solutions using, 837
—, study of volume contraction in acrylic fibers during heat stabilization using, 1319
—, wide-angle, study of castor oil-based polyurethanes using, 1031
X-ray diffraction study of crystal orientation close to the surface of a semicrystalline polymer using, 1985
X-ray scattering, morphology of poly(ether esteramide)s studied using, 1141
—, morphology of poly(ether ester)s studied using, 1157
—, small-angle, study of microphase states of polyurethaneureas using, 1919

Young's modulus, for epoxy and polyester resins, from crack growth data, 809
—, for syndiotacticity-rich poly(vinyl alcohol) thin films, in water, 4009

Zero-shear viscosities, of unsaturated polyester, 447
Zhurkov relationship for creep rupture, 1547
Ziegler–Natta catalyst, highly active, 279
Ziegler–Natta catalysts, for ethylene polymerization, metallophosphate supports for, 3491
—, kinetics of ethylene polymerization using, 1171
—, PEs obtained with, morphologies of nascent particles of, 1187
Zinc chloride, modification of PMMA outer shells using, 2271
Zinc nitrate, reduction of HCHO release from fabrics using, 3569